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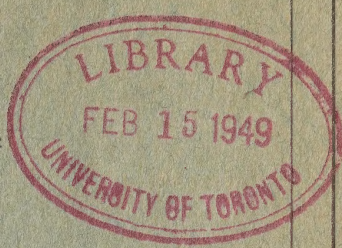
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DEPARTMENT OF LABOUR
OTTAWA, CANADA



APPRENTICESHIP IN CANADA

Minister — Hon. Humphrey Mitchell
Deputy Minister — Arthur MacNamara, C.M.G., LL. D.

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Ottawa
Edmond Cloutier, C.M.G., B.A., L.Ph.
King's Printer and Controller of Stationery
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APPRENTICESHIP IN CANADA

THE DEPARTMENT OF
LABOUR

OTTAWA
1914

PREFACE

This booklet, prepared by the Training Branch of the Department of Labour, is designed as a descriptive rather than a critical analysis. It presents facts, not comments or opinions, and does not attempt to deal with the merits or defects of individual plans. Each reader must place his own interpretation on the facts given, and in their light evaluate the various plans described.

The booklet has been compiled from information supplied through the kind co-operation of the Provincial Directors of Apprenticeship, whose names and addresses are listed in Appendix "F", and of industries across the country that are carrying on apprenticeship plans of their own. Through the courtesy of the Canadian Manufacturers' Association, a questionnaire was sent to a number of companies, and the answers were prompt and gladly given. In addition to the completed questionnaire, several companies sent in descriptive printed matter, or copies of record forms, certificates, indentures, etc. Selected samples of these are given in Appendices "A" and "E".

After the introduction, the booklet is in three parts. In part one, brief outlines are given of apprenticeship in other countries, followed by a short discussion of the basic principles of apprenticeship. Part two deals with official government program in Canada, carried on under provincial legislation, and in co-operation with the Dominion Department of Labour. Part three gives short summaries of private (non-governmental) plans carried on by representative industries, either on their own behalf, or as part of a collective labour agreement.

The seven appendices give samples of forms used, and more detailed information about certain features mentioned in the text of the booklet.

Thanks are expressed to all those who by the interest shown and by the trouble taken, have made this booklet possible.

Additional information may be obtained by application to the Director of Training Branch, Department of Labour, Ottawa.

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INTRODUCTION

Historical Background of Apprenticeship

Apprenticeship has a long history, with Great Britain as its original home. It was the foundation of that skill and pride in craftsmanship which built up British industries. The exact time in which it first came into being is lost in the mists of history, but it did originate in the medieval trade guilds of the Eleventh and Twelfth Centuries. Not only was it the only means of entry into trade skills, but it was also one of the methods by which the franchise could be obtained. The domestic and paternal plan of apprenticeship established was admirably suited to the industries of that period which were small, local and carried out on a "home" basis. The employer was responsible, not only for the class training of the apprentices who lived with him, but also for the education, morals and general conduct. The period of service was long, sometimes up to ten years, and as a rule no wage was paid. In fact, in most cases, the parent of the apprentice paid the employer a premium. Very rigid control was exercised by the guilds.

The guild system broke down in the Sixteenth Century, owing to its too monopolistic control, the great expansion in trade, and, as a result, a development of a national instead of a local concept of industry. The end was marked by the passing of the Statute of Artificers in 1563, inaugurating a system of state control which was to last for 250 years. Among other provisions, it established ratios of apprentices to journeymen. The advent of the industrial revolution, the introduction of machinery, and the change from small shops to large factories, gradually evoked a public opinion opposed to rigid state control. In 1814 the Statute of Artificers was repealed and since then apprenticeship in Great Britain has been on a voluntary basis. Thus, broadly speaking, there have been three main stages in the development of apprenticeship in Great Britain. These are:

- I. Guild Control.
- II. State Control.
- III. Free Contract.

PART I

APPRENTICESHIP IN OTHER COUNTRIES

Great Britain

Through all the crises in the national life and changes in industrial development, apprenticeship has continued to be the chief method of training in those industries where a high degree of manual skill is essential, such as engineering (metal trades), shipbuilding, printing and the building trades. The old indoor, or home apprentice, has entirely disappeared, and there has been a decline in the premium and indentured apprentice accompanied by a shortening of the usual term from seven to four or five years. Piece-work payment has interfered with the proper training of the apprentice in shops and the sub-division and specialization of jobs has lessened in many occupations the need for a high degree of all-round skill. Employers in some classes of industry have combined to carry out apprenticeship and have appointed, in recent years, committees or councils to survey the situation and make recommendations. There has been a growing tendency to indenture an apprentice to an industry, rather than to an individual employer. Standards have been set and there is a greater insistence on thorough training with increasing use being made of the Technical Colleges. Some firms have established their own apprentice training schools and classes. The starting age for apprentices is being gradually raised to fourteen, or even sixteen. The age at which apprenticeship must be completed is usually set at twenty-one. Joint committees of employers and labour in the industry are responsible for formulating and carrying on apprenticeship with assistance, but not control, from the Departments of Education and Labour.

After the last war, accelerated plans for training apprentices were set in motion, particularly for those whose apprenticeship had been interrupted by war service. These were given time credits and higher wages, with the State paying wage allowances to them for a maximum period of two years. Special study was given to apprenticeship in the coal mining industry, but an indenture system was found to be neither practicable nor desirable. A preliminary course of one year, common to all, was given, followed by one additional year at specialized types of work. Apprenticeship for shipbuilding was controlled by a collective agreement with national and local joint committees and with part-time classes held on the employer's time.

In 1945 the building and construction industry adopted a national plan of apprenticeship and a national scheme of registration. The period of apprenticeship was set at five years, but with generous time credit given for technical school training and a probationary period of six months. There is compulsory attendance at part-time classes held on the employer's time. The wages paid to apprentices vary from 25 per cent of the journeyman's wage for fifteen-year-old apprentices up to 87½ per cent for twenty-year-old apprentices. An objective of 25,000 new apprentices each year was set. Actually, it has been averaging about 23,000. Under the Education Act of 1944, full-time pre-employment classes, lasting two or three years have been set up for the building trades in the Technical Colleges.

South Africa

There was very little apprenticeship prior to the union, but in 1922 an Apprenticeship Act was passed which has served as a model for some of the first acts passed in the Provinces of Canada. It applies only to designated trades—about fifteen in number. The usual period is five years. Time credit is given to those with prior technical school training in the trade. There is a central committee representing employers and labour which recommends to the Minister the number of apprentices to be employed, but the Act definitely stipulates that these shall not be restricted with a view to limiting the future number of journeymen. Apprentices are allotted to an employer, not in accordance with a ratio to his journeymen, but in proportion to his ability for training them. About 50 advisory committees are used, and there is cooperation between the Departments of Labour and Education in supplying technical class training which is compulsory. The classes are part-time, four to eight hours per week, half of which is on the employer's time, the other half on the apprentice's time, but the operating costs are borne by the State. The minimum age of entry is sixteen, the maximum age of completion is twenty-six. As compared with Canada, the number of apprentices is very much greater (over 17,000 in 1945), mainly in the building trades, engineering, motor mechanics, printing and hairdressing.

New Zealand

The Apprenticeship Act was first passed in 1923, but has been amended on several occasions. It applies to all employers under an award or an agreement of the Court of Arbitration. The employment of apprentices was controlled by special orders of the Court of Arbitration and by Apprentice Committees. In 1944 a Royal Commission on Apprenticeship was appointed, which made numerous recommendations, many of which were embodied in the Apprenticeship Amendment Act of 1946.

Under this Act a Commissioner and Deputy Commissioners of Apprenticeship were appointed, and provision made for an expansion of local committees. Apprentice orders were made Dominion-wide instead of local, and provision was made for indenture of the apprentice to industry or to the State, as well as to an individual employer. Shop apprentices can be transferred from one employer to another, and any apprentice so transferred is not included in the ratio of the receiving employer. Where a suitable employer cannot be found, apprentices can be transferred to a Department of the Dominion Government for training. The ratio of apprentices to journeymen is set for the industry, as a whole, and the number allotted to any one employer is determined by his training facilities. All apprentices must undergo technical training, either in classes at Technical Colleges, or in centres established by the industry, and to the operating costs of which the employers contribute. Under this Act the New Zealand Apprentice Commission may act as follows:

1. Determine prerequisite education for entry to apprenticeship.
2. Co-operate with the Department of Education with regard to technical instruction.
3. Determine the extent to which technical training may be carried on during working hours as wages paid the apprentices.
4. The establishment of trade tests.

There is a provision for shortening apprenticeship for those with previous trade experience or educational equivalent, and consequent adjustment of the wages paid. The indenture is to include a schedule of the skills and operations to be learned. The normal working hours shall not exceed forty per week. Provision is made for adult apprenticeship (i.e., those over 18 years of age), and the 1946

Act also opens it to females. The period of apprenticeship is five years. Provision is made that where apprentices have to live away from home to learn their trade, they may receive a lodging allowance payable from State funds. In 1947 there were over 12,800 registered apprentices in about 36 trades, mainly in the building trades, engineering, motor mechanics, coach building, furniture, printing, baking and boot-making. The wages of the apprentices are set in percentages of the journeymen's rate.

United States

Under the constitution, apprenticeship comes under State jurisdiction, and some of the states have had apprenticeship legislation for many years. In 1937, however, Congress decided that the training of all-round skilled workers was a matter of concern to all the people of the Union, and established the Federal Apprentice Service by means of enabling or permissive legislation.

It is a basic feature of the policy that the establishment of apprenticeship plans should be voluntary, jointly developed, and mutually satisfactory to employers and employees.

The Federal Service maintains a large field staff to assist the states and industry in formulating programs. A Federal Committee was set up, representing management, labour and education, to develop standards and policies. National joint committees of management and labour have been appointed by the industries concerned, in a number of trades, to work out national standards for their own trade. Their association with the Federal Service is close but voluntary, with a mutual exchange of information and recommendations.

The basic standards of apprenticeship as drawn up by the Federal Service, are:

1. An apprenticeable occupation is one requiring at least 4,000 hours to learn. Over 100 have been so listed, with apprenticeship periods from 2 to 6 years.
2. A schedule of work processes to be learned on the job.
3. A progressively increasing wage scale to average 50 per cent of the journeymen's rate, over the whole period of apprenticeship.
4. Related technical class instruction for at least 144 hours per year.
5. A written agreement.
6. Review by the State Apprenticeship Council.
7. Apprenticeship to be jointly established by employers and employees.
8. Adequate supervision and records.

Over 20 states had passed apprenticeship acts by 1947, embodying the Federal standards. State Apprenticeship Councils have been appointed representing management, labour, and the State Departments of Education and Labour. Local joint apprenticeship committees have been formed for many trades in many areas, but where participation in such is not practicable for an employer, he is encouraged to set up a plant committee representing employers and workers.

All apprenticeship programs and agreements must be registered with the State Council and conform to State standards. In the summer of 1948 there were over 28,500 apprentice programs, with 200,000 apprentices registered in 96,000 establishments.

The standards of New York State are typical, and are as follows:

Definition of Apprentice

An apprentice is a person at least 16 years of age, employed under a written agreement, approved by the New York State Apprenticeship Council, to work at and learn a specific trade.

The New York State Apprenticeship Council recommends that each individual apprentice indenture agreement shall include the following:

1. Date agreement becomes effective.
2. Names of parties to the agreement.
3. Date of birth of apprentice.
4. Name of trade.
5. Date of beginning of apprenticeship.
6. Term of apprenticeship.
7. Provision for transfer of apprentice to another employer.
8. Provision for registration with the New York State Apprenticeship Council.
9. Provision for consultation with the New York State Apprenticeship Council in the event of differences concerning interpretation.
10. Period of probation.
11. Major work processes and approximate time to be spent on each process.
12. Graduated scale of wages.
13. Working hours per day and per week.
14. Hours of school instruction per year and name of school.

MINIMUM APPRENTICESHIP STANDARDS

1. The names of the parties to the agreement and the trade to be taught.
2. Term of apprenticeship shall be not less than 4,000 hours of reasonably continuous employment. (Credit may be granted for previous experience in the trade or industry.)
3. A probationary period, not exceeding 6 months, during which the Agreement may be cancelled by the Apprenticeship Council or the Director of Apprenticeship upon written request of any party thereto.
4. A detailed statement of the processes in the trade divisions in which the apprentice is to be taught and the approximate number of hours to be spent at each.
5. The daily and weekly hours to be worked by the apprentice.
6. A reasonable beginning wage rate for apprentices, with periodic increases (quarterly or semi-annually) so that wage will average at least 50 per cent of the journeymen's wage.
7. Related and supplemental classroom instruction for not less than 144 hours a year for each year. (Credit may be granted for previous related instruction).
8. The approximate number of apprentices to be employed, or the ratio of apprentices to journeymen.
9. If an employer is unable to fulfil his obligation under the apprenticeship agreement, the apprentice may be transferred to another employer. The New York State Apprenticeship Council shall be advised of all such transfers.
10. Where an apprenticeship agreement exists between an employer or a group of employers and a group of employees, the apprenticeship agreement shall be administered by a committee made up of equal representation of employers

and employees. Whenever the joint committee shall take under consideration matters of related instruction, the local school board shall be entitled to designate a representative to participate in the meeting during such discussion, without vote.

11. The services of the Apprenticeship Council or the Director may be utilized for consultation regarding the settlement of differences arising out of the apprenticeship agreement where such differences cannot be adjusted locally.

12. All standards and agreements shall be registered with the New York State Apprenticeship Council.

13. Upon satisfactory completion of the term of apprenticeship the apprentice will be presented with a suitable Certificate of Completion of Apprenticeship by the New York State Apprenticeship Council.

14. Such additional standards as may be prescribed or approved by the New York State Apprenticeship Council.

Australia

There is both Commonwealth and State legislation on apprenticeship. The respective jurisdiction is not altogether clear, and has led to conflicts on the regulations and control because, under the Constitution, residual powers are left to the State. On the Commonwealth level, apprenticeship is under the Federal Court of Conciliation and Arbitration which is empowered to make apprenticeship awards. The effective control and regulation of apprenticeship, however, appears to rest with the States, each of which has passed apprenticeship legislation. There have been frequent surveys and commissions on apprenticeship which have resulted in amendments to existing Acts and procedures.

Apprenticeship in the different States is carried on under authority of Industrial Arbitration Acts and special Apprenticeship Acts, and there seems to be some over-lapping in the legislation as originally passed. Administration is by Apprenticeship Boards or Commissions representing Government Departments, employers and labour, with provision made for State and local trade committees. Apprenticeship commissioners have been appointed in some States. Apprenticeship is compulsory for those trades brought under the authority of the Act in designated schedules or in apprenticeship awards. It is the sole method of entry, and is State controlled and regulated, but with the State usually acting on the recommendations of joint trade committees.

The period of apprenticeship is usually five years, and technical class instruction is compulsory in most States for periods from four to eight hours per week, for the most part in the employers' time and with the apprentices under pay while attending. Most of these classes are held in the Technical Colleges. In Queensland the employer refunds to the apprentice any fees charged for the instruction, if his attendance reaches a specified percentage. Ratios of apprentices to journeymen are set by the Apprenticeship Boards and Committees from time to time, and, in some States, the ratio applies to the trade as a whole and not to an individual employer. It usually varies from one to two up to one to five. The actual ratio of apprentices in the building trades in 1946 was substantially less than the legal ratio authorized in all States. The minimum age of entry is fourteen except in Tasmania (15) and New South Wales (16). There is no maximum age of entry in New South Wales, Victoria, Western Australia, but it is fixed at 20 or 21 years in the other States. In Victoria, the apprentice may be indentured to an employer, or to an association of employers. In Western Australia they are indentured to the Apprenticeship Board and placed with individual employers under an agreement. In Queensland they may be indentured to an individual employer, an association of employers, or to an industrial union.

There is a probationary period of three months. Since 1936 in New South Wales there has been provision for what are called "trainee apprentices" as well as indentured apprentices. For the former, the employer does not guarantee employment for any definite time and the contract may be ended by either party, but so long as the employment relation exists, the employer is under obligation to instruct. The wages of trainee apprentices are about 15 per cent higher than for those indentured if the trainee attends technical classes in his own time, but with fees for such class instruction paid by the employer. A record of his experience and time spent is kept by the Apprentice Board and this time is cumulative when he changes employers. Trainee apprentices can be employed only by firms registered and approved by the Apprenticeship Council. There is authority in all States to transfer apprentices from one employer to another but all apprentices must be registered with the State authorities. In Queensland the minister may insist on an employer taking in a specified number of apprentices.

The number of registered apprentices in all Australian States is greater than in Canada both absolutely and relatively to the population. Up-to-date figures are not available for all States, but the following give a general picture. In 1948 there were about 12,000 apprentices in Victoria in eighteen industries; in New South Wales in 1941—2,543 indentured apprentices and 2,499 trainee apprentices; in Queensland in 1945—6,044; and in West Australia in 1946—4,272. There are over fifty trades in which apprentices are registered, but for the most part they are in baking, boiler making, body mechanics, building trades, carriage building, engineering, furniture, hair dressing, moulding, motor mechanics and printing.

BASIC PRINCIPLES OF APPRENTICESHIP

The term "apprenticeship" has been very loosely used and frequently denotes nothing more than the practices followed in teaching an employee a job without regard to the degree of skill essential to the competent performance of such a job, or the adherence to any definite plan or method. This tendency has been accentuated in recent years by the higher degree of specialization in modern industry, coupled with the increasing use of automatic machinery and the breaking down among several semi-skilled workers of jobs formerly performed by skilled craftsmen. These tendencies have led some to assert that there is no longer any need for apprenticeship. Nothing could be more mistaken. Industry still needs skilled workers, although it is true that the same high degree and wide range of skills is no longer essential in certain occupations, and equally true that the identical methods followed in training apprentices fifty, or even twenty years ago, are no longer necessary or desirable.

At the same time, the development of modern industries has brought into being many new occupations calling for such a high degree of manipulative skill and technical knowledge that an organized system of apprenticeship should be the normal method of entry. It is essential that there should be a clear-cut distinction between "apprenticeship" for these highly skilled trades and "learner-ship" for entry to those semi-skilled or narrowly specialized occupations in which the requisite degree of competency can be attained in a much shorter time. It can, nevertheless, be asserted without much fear of contradiction that the period of apprenticeship for these skilled trades can be very much shortened from the five to seven years formerly prevalent, without any lessening of craft skill, provided that there is a systematic plan of practical and technical training under competent supervision and instruction, and in which training is not unduly sacrificed to the interests of production. At present there are some anomalies in the government apprentice plans in Canada where the apprentice period for the same occupation is a year to a year and a half longer in some provinces than in others. There is no logical or justifiable basis for such a situation.

In the light of the foregoing, apprenticeship may then be defined as an organized program of training for a specific skilled trade, embodying the following features:

1. An agreement or indenture in written form.
2. A definite period of apprenticeship.
3. A fixed scale of wages with progressive increases.
4. A schedule of work processes.
5. Provision for technical class instruction.
6. Provision for trade tests and examinations.
7. A ratio of apprentices to journeymen.
8. Adequate supervision and records.
9. Joint representation of employers and organized labour on all boards and committees.

The Federal apprentice service in the United States has listed over one hundred occupations which are considered apprenticeable, in view of the skill and technical knowledge required. It is suggested that periods of apprenticeship vary from two to five years. Appended is a list of definitions of "apprentice" taken from various sources. In interpreting these definitions, particularly those embodied in legislation, it must be borne in mind that the word is defined in the light of the official coverage of the act concerned.

Definitions of Apprentice

United States

"Apprentice means a person of at least sixteen years of age who is covered by a written agreement registered with a State Apprenticeship Council, providing for not less than 4,000 hours of reasonably continuous employment for such person and for his participation in an approved schedule of work experience which should be supplemented by 144 hours per year of related classroom instruction."

New Zealand

Apprentice means any person of either sex who has contracted to serve an employer and to learn and be taught any industry.

Victoria

Apprentice means any person pursuant to this Act bound apprentice by indenture or by assignment of indenture to an employer in an apprentice trade. "Apprentice Trade" means a skilled trade proclaimed by this Act to be an apprentice trade.

Queensland

Apprentice means any person bound by agreement for the purpose of being instructed in the knowledge and practice of any calling, craft or trade.

Dominion of Canada (Apprentice Agreement)

"A person at least sixteen years of age who enters into a written agreement with an employer to learn a skilled trade requiring a minimum of 4,000 hours of reasonably continuous employment and which provides a program of practical experience and related technical instruction for such person."

**Nova Scotia, Alberta and
Prince Edward Island**

Apprentice means a person of not less than sixteen years of age who enters into a contract of service in accordance with this Act whereby he is to receive from, or through, his employer, in whole or in part, training and instruction in any designated trade.

Great Britain

Apprenticeship is the contractual relationship between an employer and worker under which the employer is obliged to teach the worker, or cause him to be taught, any trade or business and in consideration of such teaching the worker is to serve the employer as an apprentice throughout an agreed period on stated terms. It may be under a written or verbal agreement.

New Brunswick

Apprentice means a person at least sixteen years of age who has entered into a *contract of apprenticeship* with an employer under the provisions of this Act.

Ontario

Apprentice means a person at least sixteen years of age who enters into a contract of service whereby he is to receive from or through his employer, in whole or in part, learning and instruction in a designated trade.

**Manitoba and
Saskatchewan**

Same as in Dominion Agreement.

British Columbia

Apprentice means a person at least fifteen years of age who enters into a contract of service in accordance with this Act, whereby he is to receive from, or through, his employer, instruction in a designated trade.

PART II

BACKGROUND OF APPRENTICESHIP IN CANADA

Prior to 1928, apprenticeship in Canada presented a rather sorry picture, and, except for scattered plans carried on privately by industry, notably the Canadian Pacific and Canadian National Railways, was a neglected field, at least so far as earned governmental interest and support. Industry depended largely on immigration from Great Britain and other western European countries, for its skilled craftsmen.

The majority of employers followed a hit-and-miss plan of training, optimistically hoping to obtain skilled workers which some other employer had trained. Such legislation as there was, was of a medieval character and reminiscent of the Elizabethan poor laws. In Prince Edward Island any infant of twelve might be indentured as an apprentice until the age of 21, and was to be taught the three R's. Penalties were provided for any person who permitted an apprentice in his house to play dice, cards, and drink intoxicating liquor. In Nova Scotia and New Brunswick there was similar legislation, with the additional proviso: "That the overseers of the poor might bind as an apprentice, the infant children of anyone who has become a public charge on the parish". The master must instruct his apprentices to read, write and cypher. In New Brunswick, no person could sell to an apprentice on credit. Any complaints about apprentices were heard before a Justice of the Peace, and one month in jail was a penalty for any misbehaviour.

To the employers and trade unions of the construction industry in Ontario must be given the credit for the first real government legislation and assistance. Financed and operated jointly by the employers and unions, an experimental plan of apprenticeship was established and carried on as a demonstration. As a result of this, Ontario in 1928 passed the first genuine Apprenticeship Act in Canada, applicable to the building trades only. There was provision for levying an assessment against employers to help defray the cost of class training of apprentices for two months in each of the two years of apprenticeship. With the coming of the depression in 1931, this assessment had to be discontinued, and the number of apprentices fell off rapidly. In 1936, motor vehicle repair, hairdressing and barbering were added to the list of the designated trades. Apprentices registered in the building trades in typical years were: 1930, 1,168; 1935, 319; 1944, 601; 1948, 3,595 (of whom over 2,000 were veterans).

In British Columbia the Apprenticeship Act (for the building trades) was proclaimed in 1935, and followed the Ontario legislation very closely. Registered apprentices in British Columbia included not only those in the officially designated trades who came under the compulsory regulations of the union, but also any apprentices who had apprenticeship permits under the Minimum Wage Acts. In addition, some plans started privately by industry conform to the provincial apprenticeship regulations and use the provincial indenture form, and the apprentices are registered with the Provincial Apprenticeship Authorities. The number of registered apprentices in typical years has been: 1937, 261; 1940, 906; 1948, 1,825.

In 1936, Nova Scotia passed an Apprenticeship Act, also modelled on that of Ontario. However, it was very limited in its actual application until recent years.

In 1937, the National Employment Commission appointed by the Dominion Government, recommended the establishment in the Dominion Department of Labour of a branch to promote apprenticeship in provinces which adhered to the basic standards as outlined by the Commission. Beyond assisting the Ontario Government under the Youth Training Program in the payment of living allowances to apprentices attending the full-time classes for 8 weeks in the building trades, nothing further was done to implement this recommendation until 1944 when, under the Vocational Training Co-ordination Act, the Governor General in Council authorized the Minister of Labour to enter into an Apprenticeship Agreement with any province. Parliament voted the necessary funds for the Dominion financial assistance, as laid down in the Agreement, the terms of which are set out in the succeeding section of this booklet.

As a result of this Agreement, Apprenticeship Acts were passed in 1944 by the Provinces of Alberta, Saskatchewan, Manitoba, New Brunswick and Prince Edward Island. The Act, however, is non-operative in the last-named province.

DOMINION GOVERNMENT ASSISTANCE TO APPRENTICESHIP

By the constitution, apprenticeship is under the jurisdiction of the province. It is, therefore, proper to ask why the Dominion Government should concern itself with it, or provide assistance. The answer is that the assurance of an adequate supply of skilled workers for the industries of the country, has a national as well as a provincial aspect. This was found by painful experience during the last war when a vast increase in production was essential to the nation's safety and when, to meet the situation, the Dominion Government inaugurated a wide range of war emergency training classes in an endeavour to rectify the omissions of the past years. Here, however, as elsewhere, prevention is better than cure. If Canada is to maintain her place as an industrial country the nation's industries must be kept supplied with a constant stream of skilled and semi-skilled workers. While the training of the labour supply is primarily the responsibility of industry itself, yet industry has a right to expect a lead and some assistance from governments, both Dominion and Provincial.

The Dominion Government has taken the following concrete action to provide industry with the necessary skilled workers:

(1) In 1944 it offered the provinces financial assistance for the training of apprentices and in that same year entered into an Apprentice Agreement for ten years with all provinces except Prince Edward Island and Quebec, under which the Dominion matches certain approved provincial expenditures. The Dominion allotment for the fiscal year 1948-49 for this purpose was \$480,000.

(2) Under the Rehabilitation Program the Dominion has financed 100 per cent of the cost of training veterans as apprentices in special centres organized and carried on in co-operation with the provinces. Over 14,000 veterans took training for the building trades alone in these centres, and all those who completed such training are now journeymen or senior apprentices. Training in these centres was given on a pre-employment basis and usually lasted about six months. The skill of the individual veteran was then tested and he was granted appropriate time credits on his apprenticeship. Such credits were for about two years on the average.

(3) In 1945 the Dominion made available to the provinces \$30,000,000 over a period of ten years for building, equipping and operating vocational schools, with the province matching Dominion expenditures. Over \$7,000,000 in Dominion funds have been spent for this purpose up to September, 1948. It is expected that these vocational schools will constitute a major source of the future supply of skilled labour.

Under the Dominion Apprentice Agreement referred to above, there are certain standards prescribed to which the Provincial Apprentice Acts and Regulations must conform if Dominion financial assistance is to be given. These are as follows:

- (1) Apprenticeship must be in a skilled trade requiring at least 4,000 hours' employment.
- (2) A written indenture.
- (3) A fixed scale of wages.
- (4) A definite length of apprenticeship.
- (5) Administration by the Apprentice Board of each province.
- (6) All apprentices must be registered and supervision must be given by the province.
- (7) A schedule of practical training and provision for technical class instruction.
- (8) The province to set ratios after consultation with employers and organized labour.
- (9) Equal representation of employers and labour on any apprentice boards or committees.
- (10) Dominion assistance is available to apprentices, not only in trades designated under provincial acts, but also to apprentices in private industrial plans, provided such plans conform to the above standards and are approved and registered by the province.

Where these standards are observed, the Dominion shares with the province in the following costs for full-time and part-time classes for apprentices:

- (1) Salaries of instructors.
- (2) Cost of materials, supplies, hand tools.
- (3) Purchase of equipment.
- (4) Rental of premises.
- (5) Weekly living allowances and travelling expenses to trainees in full-time classes.

- (6) Purchase of correspondence courses.
- (7) Per diem allowances to members of trade committees.
- (8) Salaries and travelling expenses of field supervisors.
- (9) Operating costs of special apprentice training centres.

It was following this agreement that apprenticeship acts were passed in Alberta, Saskatchewan, Manitoba and New Brunswick. That this leadership has produced results is shown by the following figures:

On March 31, 1945, before the agreement was fully operative, there were only 2,713 apprentices registered, all in Nova Scotia, Ontario and Quebec. On June 30, 1948, there were 11,743 apprentices registered in the provinces of British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, New Brunswick and Nova Scotia.

PROVINCIAL ADMINISTRATION OF APPRENTICESHIP

As the Apprenticeship Act in Quebec is so radically different from that in other provinces, it was not found practicable to include Quebec administration in this section which, therefore, is confined to the seven provinces with which the Dominion government has an apprentice agreement. Quebec is dealt with in a separate section of this booklet.

In all provinces, except Ontario, the Act provides for the appointment, usually by the Lieut. Governor in Council, of an apprenticeship board or commission, which usually consists of five to seven members with equal representation of employers and labour and representatives of the Provincial Departments of Labour and Education. In British Columbia the method of appointment of the committee and its composition is not specified. In the Province of Ontario, apprenticeship is under the general direction of the Industry and Labour Board of the Provincial Department of Labour. The provincial acts state that the Apprenticeship Commission is appointed to advise the Minister, except in the Province of Saskatchewan where it is appointed to advise the Director of Apprenticeship, with the Director acting as Chairman of the Board.

In the provincial acts in Nova Scotia, Saskatchewan and British Columbia the duties of the board or committee are not specifically outlined. Elsewhere they include the following:

1. To prescribe the form of indenture; approve and register indentures and cancellations.
2. Issue certificates.
3. Prescribe the powers and composition of advisory committees.
4. Payment of fees.
5. Nature of the class training and qualification of apprentices.
6. Arrange for trade tests and examinations.
7. Prescribe records to be kept.

In Alberta there is an additional provision that the board is to ascertain the opinions of both employers and labour about any amendments to the act or its regulations. In Manitoba the board may also approve and register apprenticeship plans carried on privately by industry, as well as those in designated trades. In Saskatchewan the act also makes a similar provision. In New Brunswick the board determines the trades that are appropriate for apprenticeship and settles any disputes.

Each act provides for the drawing up of regulations. In some provinces this is done directly by the Lieut. Governor in Council; in others it is done by the board subject to the approval of the Lieut. Governor in Council.

Advisory Committees

Trade advisory committees have been found invaluable in all provinces and increasing use is being made of their services. They are composed of an equal number of representatives of employers and labour and, in some cases, also include a representative of the Provincial Department of Education (Vocational Branch) and a representative of the Provincial Department of Labour. The Director of Apprenticeship usually acts as secretary. There are both provincial and local committees chosen either for each designated trade or for a group of trades.

Provincial advisory committees are in operation as follows:

<i>Province</i>	<i>Appointment</i>	<i>Trade</i>
Nova Scotia ...	Lieut. Governor in Council	Building Trades Motor Vehicle Repair.
Ontario	Labour and Industry Board	Building Trades Motor Vehicle Repair. Woodworking Barbering Hairdressing
Manitoba	Provincial Apprenticeship Board ...	Building Trades Motor Vehicle Repair Blacksmithing Refrigeration Tailoring Moulding.
Alberta	Provincial Apprenticeship Board— committee for each trade	
British Columbia	Lieut. Governor in Council	Building Trades Metal Trades Motor Vehicle Repair .

Local committees function as follows:

Nova Scotia ...	Lieut. Governor in Council	Building Trades Motor Vehicle Repair.
New Brunswick.	Provincial Apprenticeship Board ...	Building Trades
Ontario	Provincial Advisory Committee ...	Building Trades Motor Vehicle Repair
Saskatchewan ..	Appointment is not stated in the act. Twenty-seven local com- mittees.	Building Trades Motor Vehicle Repair Welders Barbers and Hairdressers.
Alberta	Provincial Apprenticeship Board: In each trade in Edmonton, Calgary and Lethbridge.	

As a rule there is no fixed date for the meeting of these committees which meet at the call of the board or when summoned by the apprenticeship authorities as needed. However, in most places meetings are held every few months. In Ontario, Manitoba, Alberta and British Columbia, subject to the approval of the board and the Lieut-Governor in Council, the Provincial Trade Advisory Committee may make regulations for its own trade.

Director of Apprenticeship

All provincial acts provide for the appointment of a Director of Apprenticeship and such other staff as may be necessary. The appointment is made by the Lieut.-Governor in Council, except in Nova Scotia, where it is made under the Civil Service Act, and in Saskatchewan, where the method of appointment

is not specified in the Act. The duties of the Director of Apprenticeship are pretty much the same in all provinces, but are not set forth in detail in the New Brunswick Act. These duties include the following:

1. Keep registration of apprentices—2. Enquire as to compliance with the Act.—3. Promote apprenticeship in industry—4. Assist industry in establishing a permanent system of training apprentices—5. Provide information for the Minister, apprenticeship board and advisory committee—6. Collaborate with the educational authorities regarding technical training—7. Submit annual report to the Minister—8. Other duties concerning the Act as prescribed by the Minister.

Field Supervision

Field supervision of apprentices is a most essential feature of any well organized program, the importance of which was fully demonstrated in the rehabilitation training of veterans on the job in industry. It enables the provincial authorities to ensure that the apprentices are being trained in accordance with the standards called for and that the apprentices, themselves, are giving satisfactory service. It also provides a ready means of adjusting any disputes or difficulties which, if allowed to exist for any length of time, tend to become more serious. The visiting of apprentices on the job is naturally more important in the early stages of their apprenticeship than in the final years, as it is in the first period that complaints are more apt to arise.

Amendment was made to the Dominion Apprenticeship Agreement early in 1948 by which, under certain conditions, the Dominion agrees to share equally with the province in salaries and travelling expenses of field supervisors. Such officials have been appointed in all provinces, except Nova Scotia, with the numbers of supervisors as follows:

Ontario 10.—New Brunswick, Saskatchewan, British Columbia 4 each.—
Manitoba 3.—Alberta 2.

All supervisors are themselves skilled craftsmen in one of the designated trades. The ideal arrangement, from one point of view, would be to have such supervisor visit only the apprentices in his own trade, but this would involve a tremendous duplication in travelling and an annoying multiplicity of visits to employers. Therefore, the practice has been adopted of making each supervisor responsible for a definite geographical area, except in some special cases. In some provinces the number of supervisors is not adequate for sufficient visitation to the apprentices. In British Columbia, Saskatchewan, Manitoba and New Brunswick the objective is one visit at least every four months; Ontario, twice a year; Alberta once a year. The duties include checking the progress of the apprentices and efficiency of the training given; the work performance and conduct of the apprentices; dealing with any difficulties and irregularities; working with the trade committees; co-operating with the instructors of the apprentice training centres. Their services are also used to promote apprenticeship in general.

Designated Trades

The term "designated trade" is one much used in Provincial Apprentice Legislation and signifies any trade or occupation named by the Provincial Government as coming under compulsory regulations of the Act in accordance with the procedure for such action as set forth in the Act itself.

All acts are reasonably uniform on this matter except in New Brunswick where no trades are designated in which apprenticeship is compulsory. The Act is more of a permissive nature and applies to trades which are skilled and appropriate to apprenticeship as determined, from time to time, by the Provincial Apprenticeship Committee. All plans in New Brunswick are voluntarily entered

into by employers and the trade unions, and all regulations about such plans must be approved by the apprentice committee following recommendation by the trade concerned. Employers and Unions may petition to have a local plan applied to the trade in the whole province or a specific area. In such case the Lieut.-Governor in Council may so designate, if he is satisfied, that a sufficient proportion of the employers and employees have petitioned. When a plan is so designated no apprentice may be engaged in the occupation in the area specified except in accordance with the regulations of the plan approved. Most of the present plans and regulations apply to the Saint John area. None, so far, have been designated for the entire province.

In Nova Scotia the Apprenticeship Act applies to apprentices in a designated trade, which is defined as a trade or branch thereof specified in Schedule "A" or as Schedule "A" may, from time to time, be amended, but no procedure is set forth in the Act as to how trades are designated, except to say that the Lieut.-Governor in Council may, at any time, add to or take away from the designated trades list in the schedule.

In Ontario the Act applies only to apprentices in a designated trade and specifies that if a certain percentage (20%) of the employees or employers petition to have a trade designated, the Labour and Industry Board asks the Director of Apprenticeship to make investigation. If the Board then is satisfied that the petition is a representative one the trade can be designated and added to the schedule by the Lieut.-Governor in Council.

In Manitoba a designated trade means any trade listed in Schedule "A" and named as such by proclamation by the Lieut.-Governor in Council. Schedule "A" in the Act covers about 70 different occupations. The Manitoba Act also specifies that it shall not only apply to designated trades but may apply to apprentices in private plans in industry if such plans conform to the provincial standards and are approved by the provincial board.

Somewhat similar provisions for approval of private industrial plans are found in the Saskatchewan and Alberta Acts, and the methods of designating a trade are similar to those in the Ontario legislation. The Alberta Act, however, states that the Minister, after thorough investigation by the Director of Apprenticeship and with the approval of the Lieut.-Governor in Council, may, on his own motion, designate a trade as coming under the compulsory provisions of the Act. A somewhat similar provision for designation of trades is found in the British Columbia legislation.

In practically all acts there is a section to the effect that no person can be an apprentice in a designated trade except in accordance with the regulations of the Act and, further, that no person eligible for apprenticeship can be employed in a designated trade for more than three months except under a contract of apprenticeship approved by the Act. Provision does exist, however, in some of the provincial acts, for exceptions to the above to be authorized by the Board or approved by a special permit. Such special cases are usually restricted to those employed in specialized or repetitive work.

Lists of the trades designated in each province in 1948 are shown in Appendix "B" and certain data regarding apprentice periods, ratios of apprentices and wages of apprentices in some of these designated trades are given in Appendix "D".

The Indenture

All provincial acts call for a written indenture on a form approved by the apprentice authorities, and also for the registration of each contract of apprenticeship. The Director of Apprenticeship has authority to refuse to register any contract deemed not to be for the benefit of the apprentice. All indentures must be signed by the apprentice, his parent or guardian, if a minor, and by the employer. The indenture may be terminated by consent of all parties, if so

recommended by the Director of Apprenticeship, or the Apprenticeship Board, or it may be cancelled by the Apprenticeship Board on the request of one party. There is also provision on each indenture form (usually on the back) for the transfer of an apprentice to another employer for good reason and subject to the consent of all parties concerned, if such transfer is recommended by the Board. All transfers must be registered by the provincial authorities.

In the indenture, the apprentice and/or his parent assume the following obligations in all provinces:

1. He binds himself as an apprentice in the trade of . . . for a period of . . . to serve faithfully and obey all reasonable demands of the employer. In addition to the above, the following obligations are assumed in Manitoba, Saskatchewan and British Columbia.

- (i) To attend all prescribed classes.
- (ii) Not to absent himself from work without permission.
- (iii) Not to cause damage or waste to the property of the employer.

In Nova Scotia, Manitoba and Saskatchewan indentures there is the further obligation not to discuss information about the employer's business, and in New Brunswick, British Columbia and Alberta the apprentice agrees to be subject to the conditions of apprentice standards as established for each trade by regulations under the act.

In all provinces the obligations of the employer are as follows:

To receive the apprentice for the period stated and to teach, or cause to be taught, to him the trade specified. In New Brunswick, Ontario, Alberta and British Columbia there is the further obligation that he will be subject to the conditions in the apprenticeship standards and other regulations of the act. In Nova Scotia there are several further obligations including the promise to refund to the apprentice any fees for technical class instruction, if the attendance and performance are satisfactory.

All indentures specify the wages to be paid and the increases to be given from time to time. Manitoba, Saskatchewan and Nova Scotia also specify the hours of work. In Nova Scotia the indenture also includes an outline of the schedule of practical work processes to be learned and the curriculum of technical class instruction to be followed. In New Brunswick all these items are covered in standards for each individual trade.

It is often impossible for an employer in all good faith to carry out the terms of the indenture, and the apprentice must be transferred elsewhere. This sometimes presents difficulties and breaks the continuity of training while efforts are being made to locate a suitable alternate employer. Considerable thought has been given to this problem, and in some provinces experiments have been made by which the apprentice is not indentured to an individual employer, but to the trade as a whole, or to the Provincial Apprenticeship Board.

All provinces provide for a probationary period during which the contract may be cancelled by either party. This is set at three months for all trades in all provinces, except for electricians, plumbers, blacksmiths, machinists and pattern makers in New Brunswick where it is six months. There is no definite educational minimum for entry to apprenticeship in Nova Scotia, Saskatchewan or British Columbia. In Ontario it is Grade 8 and in Manitoba Grade 9 for all trades. In New Brunswick it is also Grade 8 except for electricians (11) and plumbers (9). In Alberta it is Grade 8 for bricklayers, carpenters and plumbers, and Grade 9 for painters, plasterers and sheet metal and Grade 10 for electricians. No grade is specified for motor mechanics. The minimum age of entry is fifteen in British Columbia and sixteen in all other provinces. No maximum age of entry is established in Nova Scotia, New Brunswick, Saskatchewan or British Columbia. In Ontario it is twenty-one; in Manitoba twenty to twenty-two; in Alberta, twenty to twenty-one, according to the trade.

There is evidence from the large number of contracts which are cancelled owing to dissatisfaction with, or by, the apprentice (out of 13,500 new registrations over 3,600 were cancelled in the two years prior to March 31, 1948) that greater care might profitably be exercised in the initial selection. Moreover, steps will have to be taken at once if the intake of apprentices is to be sufficient to meet the new needs of industry. Out of 6,215 apprentices registered in the building trades in seven provinces on June 30, 1948, 3,650 are veterans who came in through the rehabilitation program. This source of recruitment has now ceased and for the future need, entire dependence must be placed on the recruitment of young civilians. The best, as well as the most obvious place, to recruit these is in the vocational schools, particularly from those graduates who have majored in an apprentice trade subject. The great increase in the number of vocational schools which is now taking place in all provinces (over 100 new schools or additions to existing ones are being built) should be of major assistance to apprenticeship, not only in furnishing additional recruits, but also in making available increased and better facilities for training in part-time or full-time classes and for the giving of trade tests.

TRAINING OF APPRENTICES

Apprenticeship is primarily an organized method of training for a specific trade. Any plan therefore that does not provide for, and insist on, thorough, competent instruction and supervision will, to the extent of that failure, fall short of its objective.

Training may be divided into two main parts: (1) practical experience in manipulative or hand skills; (2) related theoretical and technical instruction, or more simply "skills and knowledges". The first of these could be acquired in a special class in the school, or on the job with an employer. The second ordinarily can be given only in a class.

The first pre-requisite for any training is an analysis of the trade, by which it is broken down into its various units, usually termed a "schedule of trade processes". Actually this should begin with the simple operations and skills and proceed gradually to those that are more difficult and complicated. When, and only when, an apprentice has had adequate and satisfactory experience in each unit, can he be said to have attained trade competency. This will teach him what to do and how to do it, but this knowledge alone will not make him a thoroughly competent journeyman. Still less will it enable him to qualify for better positions on the ladder of promotion. To accomplish this, he must know not only what to do and how to do it, but also why it is done. This necessitates instruction in the material's and theory of his trade, a knowledge of mathematics, related science, blue-print reading, layout work, and possibly drafting or mechanical drawing. These cannot be picked up casually on the job, and must form the curriculum of carefully planned class instruction in progressive stages. Training in a class itself cannot turn out a finished mechanic. It can give reasonable familiarity with the basic tools and skills of the trade and ensure accuracy and the following of right methods; but it must be supplemented with actual work experience on the job where speed can be developed.

At the same time experience gained across Canada in war emergency training and veterans' rehabilitation has demonstrated beyond a shadow of a doubt that greater trade competency can be acquired in class than in the same period working on the job, provided that the class instructor is not only a competent tradesman but has the teaching ability to impart his knowledge to the class in a clear and systematic way. The reasons for this are: (1) That all good mechanics with an employer are not necessarily good instructors; (2) When training and production are carried on together both suffer, but the former to a

greater extent—(3) The breadth of experience any apprentice can obtain on the job necessarily depends on the types of work the employer has in his shop from time to time, so that an apprentice may never have an opportunity of learning some of the specialized units of the work—(4) There is an inevitable tendency for an employer, in the interests of production, to retain an apprentice on certain routine or elementary types of work for a long time after such work has ceased to have any training value.

In all apprentice plans under provincial legislation, the great bulk of the practical training is given on the job. But the class training which is being given in all provinces has proven most valuable, not only for the technical and theoretical instruction, but also as a means of filling in any gaps in the practical trade experience the apprentices have had on the job. Methods vary in the different provinces. Use is made of full-time classes lasting from one to three months each year; part-time classes 4 to 6 hours per week, and correspondence courses. The last are used mainly for apprentices in outlying areas where the attendance at class training is not practicable. All this training is given subsequent to the apprentice being indentured to the employer. During the veterans' rehabilitation, training was given on a pre-employment basis with courses lasting about 6 months in special centres. On the conclusion of these courses the veterans were trade tested and given time credit appropriate to the skill attained by each. This credit varied from one to three years. Not only did this method enable the training centres to eliminate apprentices, undesirable either on account of personal characteristics or lack of aptitude, and thus give industry a better type of apprentice, but it also qualified the veteran for a better rate of pay when he first started employment. Some discussion is now taking place as to the desirability of making pre-employment training possible for civilian apprentices in the designated trades.

Correspondence courses are used to a limited extent in Nova Scotia, New Brunswick, Manitoba and British Columbia for apprentices in rural areas, or in localities where no class facilities are available. In Saskatchewan they are used for some of the more advanced apprentices who have had sufficient educational background to profit by them.

Part-time classes are used exclusively, in British Columbia in the evening for 4 hours per week, and in Nova Scotia for 6 hours per week either during the day or in the evening. Apprentices, except in the building trades, attending classes, are paid at their usual rate by the employers in Nova Scotia, and in a few cases in British Columbia. Classes in these provinces last about 30 weeks per annum.

In Ontario the apprentices are encouraged to attend the regular evening classes in the municipal vocational schools, but otherwise all class training is on a full-time basis in special apprenticeship classes at the Ryerson Institute of Technology in Toronto (operated by the province), where, in the building trades, the apprentice attends 8 weeks, and the mill workers 12 weeks, during each of the first two years of their apprenticeship. Full-time classes for two months have also recently been started for apprentices in motor vehicle repair.

Saskatchewan and Alberta rely on full-time classes, given for most of the designated trades, for periods from 4 to 12 weeks per annum during each year of the apprenticeship, although some part-time class training is given senior apprentices in plumbing and electricity in Alberta.

In Manitoba all training is centralized in Winnipeg, with full-time classes lasting 8 weeks per annum for first and second year apprentices in the building trades; 6 weeks for all apprentices in motor mechanics and blacksmithing, and 8 weeks for all years for tailoring apprentices. Part-time classes are given in all designated trades, (except motor mechanics, blacksmithing, tailoring and refrigeration), for two evenings per week for 28 weeks in the year—but the apprentices in attendance receive no payment.

In New Brunswick most of the training is given in part-time classes, held in six different localities on Saturday mornings for four hours, for 36 weeks each year, and the apprentices in attendance receive their regular hourly rate of pay from the employers. Some full-time classes have been held at the special veterans' centre at Moncton, in some trades lasting from one to three months each year.

As a rule, all class training in all provinces is under the direction of the Vocational Branch of the Provincial Department of Education, acting on the recommendation of the appropriate apprentice authority concerning the general type of training desired.

Some difficulties have been experienced in securing attendance of the apprentices at the classes, but most of the complaints have been from the apprentices and not from the employers. Some claim they are too tired after a day's work to attend the evening classes, while for full-time classes, married apprentices and those who have to live away from home claim that the weekly allowances paid are not sufficient. A few employers have objected that they cannot spare the apprentices from the job. Although attendance at classes is compulsory under most provincial acts or regulations, and penalties for non attendance are provided, there has been a general reluctance to enforce these penalties.

In all provinces except Ontario, class training is comparatively recent, and it is the consensus that time and education will remove any objections to it. In part-time training in Nova Scotia and New Brunswick, however, where the apprentice receives pay from the employers, the rule "no attendance, no pay" applies, and in New Brunswick, habitual non-attendance may result in cancelling the contract. In Nova Scotia, unless the attendance is good, the apprentice is not up-graded. There are no penalties for non-attendance in Ontario or Saskatchewan. In Manitoba the apprentice may be barred from the final examination until the full period of class training has been completed.

The following table shows the rate of weekly allowances paid apprentices in full-time classes:

—	N.B.	Ont.	Man.	Sask.	Alta.	B.C.
Single Apprentices.....	11.00	.....	.....	.....	12.00	.....
Married Apprentices.....	15.00	.....	.....	18.00	15.00	18.50
Apprentices living at home.....	.....	12.00	11.00	.....	.....	.....
Apprentices living away from home.....	.....	15.00	13.00	.....	.....	.....
Single Apprentices living at home.....	.....	.....	.....	12.00	.....	12.00
Single Apprentices living away from home.....	.....	.....	.....	15.00	.....	14.00

Increasing use is being made of a syllabus for each trade, but there is room for further progress in this regard, particularly the breaking down of each trade into a detailed list of work processes and the approximate amount of time spent on each. Manitoba and British Columbia have a syllabus for each trade. Alberta, Saskatchewan and New Brunswick have them for most trades—Nova Scotia only for carpenters, electricians and plumbers. In Ontario the syllabus is used mainly for the class instruction. Job record or progress cards to show what units of the work process have actually been covered by the apprentice, either on the job or in class, are not used in any province (except in Nova Scotia for carpenters; and in New Brunswick for carpenters, plumbers, motor mechanics and printers.) Such a job progress card is standard practice in all apprentice plans carried out by private industry.

Trade tests and examinations are being used to an increasing extent in most provinces, particularly at the end of the period of full-time class instruction. In Alberta, Saskatchewan, Manitoba, New Brunswick and Nova Scotia there is a final examination, or a test, before the certificate of proficiency is granted at the end of the apprentice period. In Ontario a final examination is given plumbers and electricians in the larger cities.

Periodic trade tests are given as follows:

N.S.—Annually by a representative committee. Wage increases of the apprentice depend on the result.

N.B.—Periodically by instructors at schools. Wage increases depend on satisfactory progress of the apprentice and not wholly on the trade tests.

Ont.—At the end of class training by the instructor. Increase of wages not dependent on trade tests.

Man.—Every few months by the school instructors. Wage increases not dependent on trade test.

Sask.—By special examining boards as found necessary. In some cases increases are dependent on trade tests.

Alta.—At the end of class training by the school instructors. Increase depends on passing the trade test, unless the employer specifically asks for an increase.

B.C.—Annually for examinations for correspondence courses and at part-time classes.

The apprenticeship acts in the following provinces specify that appropriate time credits on the period of apprenticeship may be given to veterans, workers with trade experience and students from the vocational schools: N.B. (by the Apprenticeship Commission), Man. (by the Apprenticeship Board), and Sask. In Ontario, Alberta and British Columbia provision for time credits is made in the general regulations on the approval of the Apprentice Board or Committee.

APPRENTICESHIP IN QUEBEC

The legislation governing apprenticeship in Quebec, and its organization, is so radically different from other provinces that it was considered desirable to deal with the administration there in a separate section of this booklet.

Apprenticeship in Quebec has been carried on in many industries under government regulations, as provided for by decrees under the Collective Agreements Act, 1941. These decrees are administered by "parity" committees, representative of employers and unions, and lay down the length of apprenticeship, ages and wages, ratio of apprentices to journeymen, etc. In some instances the resultant apprenticeship plans were not particularly effective, and represented little more than fixing the number or percentage of workers with an employer who could be considered as beginners and therefore paid less than the journeymen's wage as set out by the decree. For many trades the province was divided into zones, and a wage scale was set for each zone.

In 1945 the Apprenticeship Assistance Act was passed to provide for a more systematic and better supervised plan of training apprentices. It is administered by the Provincial Department of Labour and under it the Lieut.-Governor in Council may recognize any suitable municipality as the apprenticeship centre of a trade, on application of an association of employers and an association of workers. Ten or more persons may petition the Lieut.-Governor in Council to be incorporated as an apprenticeship commission for any recognized apprenticeship centre, provided that the Minister of Labour, Minister of Health, and the Minister of Youth and Social Welfare, or their representatives, shall be members of each commission so appointed.

Each commission is an autonomous body, and its responsibilities include: (1) Making of agreements with institutions, under the Specialized Schools' Act, or the Trades Schools' Act. (2) Giving courses of training to apprentices. (3) Determining conditions of apprenticeship in its establishments with regard to the length of the period of the program of studies, provided the latter is approved by the parity committee concerned.

Finances are provided by the Department of Labour of the province, associations of employers, and associations of workers through the parity committees. Each commission has its own supervisory and administrative staff. A technical adviser on apprenticeship has been appointed by the Provincial Department of Labour. Up to the present, 15 commissions have been established for different trades and areas, as follows: Building Trades (7)—Chicoutimi, Hull, Joliette, Matane, Montreal, Quebec, Sherbrooke; Watch Repair (1) Montreal; Printing (1) Montreal; Lithography (1) Montreal; Shoe Industry (1) Provincial; Barbers and Hairdressers (2) Montreal, Sherbrooke; Automobile Repair Industry (2) Montreal, Quebec.

There is no uniform method of selecting apprentices, as care is taken not to interfere with the individual employer's freedom in taking on apprentices, providing the number does not exceed the ratio established for that trade by the labour decree.

The minimum age of entry is 16, except for moulders and boiler makers, where it is 20. The maximum age of entry is 25, except for printers—20, barbers 30,—and electricians, plumbers, steam fitters, and motor mechanics, where no maximum age of entry is set.

There is no minimum educational requirement for entry to apprenticeship, except for printing—grade 9, motor mechanic—grade 6, barbers and hairdressers—grades 6 to 9. There is no written indenture except for the printing industry, but all apprentices have to be registered with their apprenticeship commission. Similarly there is no formal probationary period, except for printers—1 year, motor mechanics—6 months, plumbers and steam fitters—1 year. Trade tests or examinations are given periodically in all trades, through the different commissions.

Apart from the practical training received on the job with the employer, the instruction of apprentices is given either in pre-employment full-time classes, under the direction of the commission, or in part-time classes, either in special centres operated by the commission, or in the regular provincial specialized or Arts & Crafts schools. Full time pre-employment centres are established as follows: Building trades—Montreal, Sherbrooke, Chicoutimi; Shoe Industry—Montreal; Barbers and Hairdressers—Montreal. Part-time classes are held in Montreal for printers, watch repair, shoe industry, barbers and hairdressers.

The approximate number of apprentices under training in these groups or industries is as follows: building trades—full-time classes 450, evening classes, 1,000; watch-repair—part-time classes 35; printing—part-time classes 508; barbers and hairdressers 300 in both full and part-time classes; shoe industry—full-time classes 40, part-time classes 300.

Training for the Building Trades

In Quebec, as in all other provinces, special attention has been given to promoting apprenticeship in the building and construction industry, following joint recommendations from both employers and unions. Seven building trades commissions have been organized under the Apprentice Assistance Act, and three full-time trading centres are operated in Montreal, Sherbrooke and Chicoutimi. The building and construction industry has formed an apprenticeship committee, representing employers and the unions, and it is working in a spirit of full cooperation.

The usual practice is for the apprentice applicant to be interviewed by the head of the training centre, and, if suitable, he is admitted to full-time training, where he is on probation for two weeks, pending reports from the chief instructor. If his work and conduct are satisfactory, he is given six months pre-employment training, which covers technical instruction in related subjects, as well as practical work. He is not indentured to any employer until he has completed his six months' course.

No regular allowances are paid the apprentice while at the centre, except in the case of needy individuals who may receive assistance from a small fund, contributed by the commission, employers, unions, and welfare organizations. When his course is finished, he is placed with an employer and registered with the commission. If his employer runs out of work the centre places him with another employer. If there is a considerable waiting period during transfer from one employer to another, the apprentice is required to attend the training centre for further instruction, and while there receives 50 per cent of his wage from the centre.

Time credit is allowed apprentices on their period of apprenticeship for technical school training, in proportion to the length of their studies and the results of their examinations. Wages of building trades apprentices are set in percentage of the journeymen's rate, and increased every year. For four-year apprentices, percentages are 30, 45, 60, 75. For apprentices in three-year trades, the percentages are 45, 60, 75.

Training for the Printing Industry

The following is the procedure followed for training apprentice applicants under the jurisdiction of the Apprenticeship Commissions of the printing industry in the Montreal area, which represents both employers and unions. The regulations recommended by the commission were established by Order in Council in 1947 under the authority of the Apprenticeship Assistance Act. Each employer is free to select and engage his own apprentices, but the number is governed by the ratio of apprentices to journeymen, as established by the decree under the Collective Agreements Act (1 apprentice to 3 journeymen). An employer may retain an apprentice for six months without a written indenture, but at the end of that time an indenture must be signed for 6 years (which includes the first six months' employment), of which one year is a probationary period, during which the indenture may be cancelled by the commission. All indentures must be registered with the commission and signed by the parent, the apprentice, the employer, and the commission.

Apprentices are selected from persons 16 to 20 years of age who have had two years high school education or the equivalent, and who pass a medical examination, aptitude and other tests. Monitors are designated in each establishment by the commission, on the recommendation of the employer, to be responsible for the practical instruction of the apprentice. A definite schedule of work processes is set out in detail for each branch of the trade, and also the curriculum of technical instruction which is given at the Provincial School of Graphic Arts. After six months employment the apprentice is required to attend this school for one day per week, during each of the first three years of apprenticeship, and is under regular pay by the employer for that day. Apprentices in each of the last three years must attend evening classes for one night per week, on their own time. Oral or written examinations are given the apprentice after six months, by the committee, and a written report is sent to the parent and to the employer. No charges are made by the commission for these examinations, or for other services to the apprentice. Wages are set in percentages of the minimum rate for journeymen, beginning at 31 per cent and ending at 84 per cent. Increases are given every six months, and the percentage of that increase is greater each succeeding period.

If the establishment and equipment of the employer is such that he cannot give full instruction to an apprentice, the latter may be transferred to another employer by the commission. Each apprentice is issued with a work record book, in which he fills in the time spent each day on each type of operation. This is checked by the monitor, who also rates the apprentice monthly for aptitude, workmanship, productivity and attitude, with five grades of rating for each. The monitor sends in a detailed progress report on each apprentice monthly to the commission, which maintains a master record card for each apprentice. This shows his name, address, age, education, results of medical and other tests, date of indenture, and a monthly summary, covering the full six-year period, of the hours worked on each operation, and the ratings given by the monitor. On the successful completion of the course, the apprentice is given journeyman's status.

PART III

DESCRIPTION OF PRIVATE PLANS IN INDUSTRY

Canadian Pacific Railway

A well organized and supervised plan has been carried on for over 40 years in 13 mechanical trades with about 815 apprentices enrolled at present. There is a written indenture (see Appendix "A") for a period of five years. Grade 8 education is required for the applicants who must be between 16 and 21 years of age and pass an entrance examination in mathematics. There is a definite schedule of work processes for each trade and the apprentice must attend part-time classes for three hours each week in mathematics, trade theory and mechanical drawing. The wages are based on the collective labour agreement and are increased every 6 months. Periodic trade tests are given and also an annual examination. On the successful completion of the period of apprenticeship a certificate is given. There is a special supervisor of apprentices who, while they are at work, are under the direction of a foreman or older worker. They are moved from one shop to another, as required, for greater breadth of experience.

Consolidated Mining and Smelting Company, B.C.

The plan is carried on in accordance with the regulations of the Provincial Apprenticeship Act and all apprentices are registered with the province and sign the indenture approved under the Act. Applicants must be between 15 and 21 years of age, physically fit and have completed Grade 8 or its equivalent. They are in the following trades: armature winder, blacksmith, boiler maker, bricklayer, carpenter, electrician, instrument mechanic, lead burner, machinist, motor mechanic, moulder, painter, pattern maker, plumber and steam-fitter. The apprentices are under the general direction of apprentice supervisors, who keep records of the practical and technical progress and conduct technical classes which are held in working hours for four hours each week. The apprentice receives his usual pay for half time spent in the class. The wages are set in a percentage of the journeyman's rate and are increased every six months from about 36 per cent at the beginning to 79 per cent in the final year. On the completion of the apprenticeship period, a scholarship bonus is given those who have satisfactorily pursued their studies in the previous six-month period. The apprentice then serves six months as an improver before being given his journeyman's status.

Consumers' Gas Company, Toronto

Although there is no formal plan of indentured apprenticeship there are about 15 apprentices for the installation of gas appliances and the repairing and testing of meters. The period of training is two years, and includes technical

class training given on the company premises, but with no definite syllabus. The plan is part of a collective labour agreement which governs the wages paid and the increases given every six months.

McKinnon Industries, St. Catharines

Apprentice training has been carried on since 1941 for tool and die makers, electricians, pattern makers, draftsmen and machine repair men, with 17 enrolled at present for a four-year period. There is no written indenture, no trade test, and no technical class training. All instruction is given on the job by the foreman. Wages are increased every six months. The applicants are selected from youths of 16 or 17 who have had several years in vocational school. Those with four years vocational education are given a time credit of six months on their apprenticeship.

Toronto Transportation Commission

The apprentice training plan was inaugurated in 1934 and there are at present 37 apprentices enrolled in the machine shop, tool room and in motor vehicle repair, but there is no indenture except for those in the last trade, which is designated under the Provincial Act, and is carried on in accordance with its regulations. Recruitment is directly from the technical schools and the applicants must be graduates who have majored in the subjects of their respective trades. Each school furnishes a report on its own students and each applicant must pass a thorough medical examination, as well as intelligence and mechanical aptitude tests. An induction program is given by a member of the personnel department, which is responsible for co-ordinating the training program and maintaining contact with the apprentices and with the line department supervision.

The period of training is four years for the machine shop and three for motors and general section; three for the car shop and three for the metal body section. All training is given on the job in the shop by a designated employee, but for the motor vehicle apprentices it is supplemented by evening classes for five months each year in a technical school. A schedule of work processes has been prepared for each trade and as the period in each section is completed, a rating form is filled in and carefully checked by the personnel department. There is a definite wage scale with increases of 5 cents per hour every six months until the final year when the increase is 10 cents. It is not considered desirable to have too great a spread between the rate of the final year apprentices and the starting rate of journeymen. Contrary to popular belief, the apprentice plan has not been expensive nor has time been wasted in training youths for other organizations. The losses have been negligible. No graduate apprentices have left the T.T.C. except to attend an engineering course at a university. Some graduates have been promoted to supervisory posts.

The rating form covers the following headings: industry, ability to learn, co-operation, efficiency, attitude to the job, initiative, appearance, capacity for growth, general value, with space for five ratings under each of these headings. For example, under the heading "ability to learn" the ratings are—very dull, needs constant correction, learns slowly but remembers well, quick to learn, unusually bright; and under "initiative"—needs constant supervision of details, routine worker, makes occasional suggestions, resourceful, very original.

The schedule for machinists is:—tool room 12 months, including tool crib, elementary machine and bench work, use of hand tools; radial and single drills one month; shapers four; turret lathes four; milling machines four; pattern making three; drafting three; boring mill three; planer four; engine lathe eight.

Dominion Engineering, Lachine

A plan designed for 80 apprentices in machine shop (5 years) and foundry (4 years) was commenced in 1946. The applicants must be of good character, between the ages of 16 and 18, who have completed Grade 10 and are recommended by the principal of their school. They must also pass a medical examination. It is the policy of the company to select their future leaders from qualified graduate apprentices. There is a written indenture and a certificate of craftsmanship is given on the successful completion of the course which includes practical work experience in the shop and technical instruction in class in the subjects of machine shop theory, mathematics, blueprint reading. Motion pictures play an important part in all phases of instruction. The class instruction is held twice a week in the first year and once a week for each remaining year of apprenticeship. Subject to passing tests, wage increases are given every six months. During the first six months of training the apprentices are under a special supervisor. Subsequent instruction is given either by the foreman or a suitably qualified older worker under the general direction of a foreman's apprenticeship committee. There is a syllabus of instruction, which for machinists is as follows: blueprint reading, grinder 2 weeks; machinists training centre 24; cylindrical 4; drills 7; turret lathes 11; sheet metal 11; planer 14; internal grinding 6; small lathes 32; horizontal boring drills 27; gear cutting 13; milling machines 12; vertical boring mills 16; fitting and erecting 17; inspection 13; pattern shop 2; foundry 5; slotters 4; heat treating 4; welding 3; large lathes 12; tool room 11.

Canadian Westinghouse, Hamilton

This Company has a thoroughly organized and supervised program of apprenticeship that has been functioning since 1907 covering a four-year period (8,800 hours) for machinists, tool and die makers, carpenters, sheet metal workers, pattern makers, moulders, welders, electrical machinists and maintenance electricians. Applicants must be between 17 and 20 years of age with at least high school entrance, who are referred to the local technical school for examination prior to acceptance. Most of the apprentices come from the technical schools and, in many cases, are first employed as office boys, at the age of 16 for one year, which gives the company a good opportunity to make a careful selection of prospective apprentices. After a probationary period of three months a written indenture is signed in which the wages are fixed with increases of 2 to 4 cents per hour every six months and a bonus of \$100 on the successful completion of the course. The instruction and supervision of all apprentices, except the electrical machinists, is the responsibility of one foreman throughout the entire four years. The electrical machinists are moved from one department to another.

Very close relations are maintained with the Hamilton Technical School and attendance at classes in technical instruction there is compulsory, with half a day per week under regular pay from the company and one evening per week on the apprentice's own time. The company defrays all fees at the school for this instruction and examinations are set twice a year jointly by the school and the company, with the school furnishing attendance and progress reports to the company. This class instruction covers: shop practice, drafting, electrical subjects, geometry, trigonometry and arithmetic. All instruction in the practical work is given on the job in the plant.

Very complete monthly records are kept including:

1. Attendance at technical classes both for day and evening classes for the four-year period.
2. A monthly report signed by both the foreman and the apprentice showing the times late, hours absent, hours worked each day, operations performed and general remarks.
3. Ledger sheet record of the departments worked in, time in each, total hours, wage increases.
4. A grading sheet

is filled in by the technical school each month under the headings: interest in the work, application, ability to learn, accuracy, speed, reliability, initiative, judgment, conduct, progress, with five gradings for each heading. It also shows the percentage obtained in each examination.

Dominion Rubber Company, Kitchener

The apprentice plan in operation since 1919 without a break, covers about a dozen apprentices with a period of four years in machine shop and tool room, pattern making, sheet metal, welding and mechanical drafting. The applicants must be at least 16 years of age, physically sound, of good character and have a fair education (two years' high school). Time credits are allowed for graduates of a mechanical branch of a technical school. There is a written indenture with a probationary period of three months and a schedule of wage payments with increases varying from seven to ten cents per hour each year. The starting rate is about 50 per cent of the journeyman's rate and in the final year, about 70 per cent. A bonus of 25 cents for each day is paid to the apprentice on the successful completion of his course, and a certificate is given.

There is a schedule of work processes to be covered for each trade with technical instruction at the Kitchener-Waterloo Vocational School in evening classes, one to three nights per week for about six months each year. The subjects covered are—business English, mechanical drawing, shop mathematics and certain trade subjects, such as, machine shop practice, electricity, welding, foundry, pattern making, etc. Eighty per cent attendance at these classes is required and reports on attendance and progress are supplied by the school to the company. The supervision of the apprentice on the job is the responsibility of the foreman with assistance from the industrial relations department, but the actual instruction is often delegated to an older and experienced worker.

Canadian General Electric—Peterborough

Apprenticeship has been carried on at the Peterborough plant of the Canadian General Electric since 1899 with a most comprehensive plan in operation. At present it covers about 120 apprentices in drafting, instrument laboratory, electrical testing, machine fitters, tool makers, machinists, pattern makers, moulders, ceramic technicians and armature winders with a five-year course in pattern making and four years in each of the other trades including a probationary period of three to six months which is followed by a written indenture (see Appendix "E"). Applicants are carefully selected from high and technical school students between the ages of 17 and 21 (over 21 in special cases) with a minimum education of Grade 11 for the shop trades and Grade 13 (honour matriculation) for drafting, electrical testing and instrument laboratory. A schedule of basic wages is set with increases of 6c per hour every year with a proficiency bonus of 5c per hour for apprentices with a rating of at least 70 per cent in the previous year's technical training and shop work. Numerous apprentice graduates now hold supervisory positions with the company. Time allowances have been made to veterans who have been reinstated in their apprenticeship following their discharge from the forces.

There is a full-time supervisor of apprentices and a committee of six skilled craftsmen who direct and co-ordinate all matters relating to apprentice training assisted by full-time apprentice instructors in the larger departments. A definite syllabus of shop training is prescribed for each trade which is supplemented by technical class instruction two evenings per week for six months each year at the Peterborough Vocational School with which a very close co-operative relationship exists. Two-thirds of the tuition fee charged by the school is refunded by the company to those apprentices whose attendance and progress is up to a specified standard. The technical instruction includes machine and

tool design, electricity, mathematics, blueprint reading, metallurgy, physics, chemistry, machine shop practice. Twice a year the school fills in a report on the attendance and progress of each apprentice, showing the percentage of marks in each subject, a rating on the practical work done and general comments. Periodic reports are also made by the foreman and the shop work and quarterly progress reports are sent to the parent of each apprentice. On the completion of the course a certificate is given. Four times a year each apprentice is rated by a committee of three (supervisor of apprentices, foreman and assistant foreman), covering quality of work, quantity, dependability, originality and conduct. This information, together with reports from the school, is entered on a record card which is kept for each apprentice.

Ford Motors of Canada—Windsor

Since 1936 Ford Motors of Canada have carried on a trade school for apprentices which is the first school in Canada recognized as a technical institute by the American Society of Tool Engineers. The purpose of the school is to train young men in tool and die making and related trades and to provide special courses for supervisory personnel brought in from the different branches of the company. The staff consists of a superintendent reporting directly to the general production superintendent of the company, an assistant superintendent and six instructors. It operates for forty hours a week and is housed in a separate building about 100 feet square with ample floor space and with separate lecture rooms to provide classroom accommodation for about 40 students. The course is of four years' duration including a probationary period of six months. At present there are about 150 apprentices enrolled, but there is no fixed ratio of apprentices to journeymen. The ratio, at the present time, is about one to six. The first three years are spent in the trade school and the final year in that department of the plant to which the apprentice will later be assigned. There is a fixed schedule of wages, 75c for the first year, 85 for the second year, 97 for the third, and \$1.22 for the fourth, with time and a half paid for anything over 40 hours per week. Five cents per hour of this wage is retained by the company until the end of the working year when the accumulated amount is paid to the apprentice in full. This trains him in systematic saving. The company supplies free the text books for the first year and also an apprentice tool kit comprising combination square, centre punch, hermaphrodite, a 6" flexible scale, inside and outside calipers, dividers and centre gauge. About 10 per cent of the working time, four hours per week, is spent in the lecture rooms on technical instruction during which time the apprentice receives his regular rate of pay.

Apprentices are selected by means of written applications, personal interviews and written tests, from young men between 16 and 19 years of age who pass a medical examination and who have completed two years in high school or technical school. A written indenture is signed by the apprentice, his parent or guardian and the company. A special progress chart (see Appendix "E") is kept for each apprentice. The apprentices are graded weekly on the classroom subjects and rated on the shop work each time they move from one department to another (see Appendix "E" for rating chart and key). The school operates its own inspection department and all work is inspected by senior apprentices before being sent to the company's tool room inspection department. In the final year of the tool and die department the apprentice practises the principles previously learned and is given an opportunity to make the part complete using his own initiative in planning the sequence of operations. He also does bench work including assembly and repair of instruments and gauges.

All work done in the trade school is definitely of a tool room nature and all tools made in it are used in the plant on regular production. No practice projects are carried on and there is no production of the company's saleable production. The following is a summary of the class instruction and practical shop work given each year:

FORD TRADE SCHOOL CURRICULUM

FIRST YEAR

Industrial Materials and Processes—50 Hours—Small tools; machine tools; metallurgy as applied to tool making; machining operations and processes.

Blueprint Reading—27 Hours—Elementary blueprint reading; Intermediate blueprint reading; Advanced and clay modelling.

Engineering Drawing—48 Hours—Elementary mech. drawing; Intermediate mech. drawing.

Applied Mechanics—13 Hours—Simple machines, hydraulic machines, friction, power, force, heat expansion in machines, combustion of fuels.

Strength of Materials—12 Hours—Materials of construction, stress, strain, elasticity, tension, compression, shear safety in materials, beams, torsion and shafts.

Mathematics—50 Hours—Review of Arithmetic; Algebra Part I; Algebra Part II; Geometry.

Practical Shop Work—1,800 Hours—Tool cribs, drill press, shaper, lathe, tool hardening, bench work.

TOTAL NUMBER OF HOURS—2,000

SECOND YEAR

Industrial Materials and Processes—50 Hours—Threads (theory and design); Sine bar problems; General milling machine practices; Spec. milling machine practices; Science of grinding.

Engineering Drawing—75 Hours—Advanced drawing—machine parts; Advanced technical sketching: gears; Assembly drawing.

Mechanisms—25 Hours—Motions, gears and gear trains, cams.

Mathematics—50 Hours—Trigonometry Part I; Trigonometry Part II; Compound angles; Continued fractions

Practical Shop Work—1,800 Hours—Cutter grinder, horz. miller, vert. miller, surface grinder, lathe, slotter, jig bore, screw machine, tool hardening.

TOTAL NUMBER OF HOURS—2,000

THIRD YEAR

Tool Design—125 Hours—Introduction and drafting room practice, threads, tolerances and allowances, gauge and gauge design, springs, cams design and application, cutting tool design and application, welding design and application, punch and die design, jig and fixture design.

Mechanisms and Advanced Mathematics—25 Hours—Linkage, connectors, planetary gears; Application of continued fractions.

Applied Psychology—25 Hours—Introduction to psychology; Psychology applied to objectives; Human relations and psychology; Industrial application of psychology.

Report Writing—25 Hours—Design of the report; Form of the report; Criticism of the report; Assignments.

Practical Shop Work—1,800 Hours—Horz. miller, surface grinder, external grinder, shaper, internal grinder, lathe, universal grinder, inspection tool hardening.

TOTAL NUMBER OF HOURS—2,000

FOURTH YEAR

Supervised Training in the Tool and Die Departments—2,000 hours.

Canadian National Railways

The apprenticeship system originated with the Grand Trunk Railway System about 1870. Technical instruction was first introduced on a small scale in the year 1883, reorganized from time to time to keep pace with new methods in both the practical and technical sides, and governed in part by the terms of the labour agreement between the Management and Federated Trades. At the present time there are approximately 1,600 apprentices on the System.

It is the policy of the C.N.R. to train their mechanics through a standard system of apprentice training and produce sufficient mechanics in each craft to take the place of those employees who will reach retirement and fill gaps created by death, promotions, etc. in the Motive Power and Car Departments. This is

accomplished by means of a survey made annually. The ratio of one apprentice to five mechanics is the scheduled proportion and is found to be satisfactory in most cases.

The General Supervisor of Apprentice Training, under the direction of the Chief of Motive Power and Car Equipment at Montreal, is responsible for the general policy both in shop and class work over the entire system. The Works Manager, Superintendent of Shops or General Foreman at smaller points is responsible for the training of apprentices in both shop and class work. The class or shop instructors are in turn responsible to them for the training and supplying of information regarding the progress of all apprentices.

Great care is exercised in selecting suitable applicants. They must be between the ages of 16 to 21 years; have equivalent to high school entrance; pass a physical examination by a company doctor; submit a report with regard to school standing, and pass the company's entrance examination. The indenture covers a period of 5 years or a total of 11,600 hours. The wages are covered by the agreement with the Federated Trades, progressive increases being granted on the completion of each term of 1,160 hours.

Apprentices pay \$8.00 per year for five years to cover part of the expense of text books and instructional material. This amount is deducted from their wages quarterly. As an incentive to study, all money so deducted, less \$15.00, is returned on the completion of apprenticeship, to all making an average of 75 per cent or over in mathematics, drawing, and trade theory.

A progressive program covering shop work is laid in detail covering the following trades: machinist, boilermaker, blacksmith, pipefitter, electrician, sheet metal worker, car-man, painter, upholsterer, patternmaker, moulder. Apprentices work in the regular departments of the shop, and are engaged in production work under the supervision of the shop instructor and foreman. They are moved from department to department to acquire general training, the maximum period of time taken in each being four months. They are also required to move to outstations (roundhouses and car repair points) for running repair experience during the last year of apprenticeship. Each move made by an apprentice is covered by a shop progress report completed by the foreman of the department and countersigned by the shop instructor and works manager or shop superintendent.

Apprentices attend class two hours each week. The subjects taught are mathematics, mechanical drawing and trade theory. Examinations in these subjects are held annually. They are also instructed in safety and accident prevention, and a limited number are given first aid training. Educational visits to industrial plants and educational film programs are also part of the training program. Arrangements can be made to allow apprentices leave of absence to attend university after they have completed $3\frac{1}{2}$ years of their apprenticeship.

On completion of apprenticeship a certificate is given that the apprentice has received the requisite practical training and instruction necessary to qualify him to practise his trade. It is signed by the General Supervisor of Apprentice Training and approved by the General Superintendent of Motive Power and Car Equipment of the region. On the completion of their apprenticeship, apprentices are credited with two years seniority. Individual files are built up for each apprentice containing the following: (a) educational tests and copy of all forms pertaining to his entrance into the service; (b) reports covering the six month probationary period; (c) apprentice shop reports; (d) time records; (e) record of all examinations in class work; (f) copy of all correspondence and forms pertaining to the apprentice's movements, leave of absence and other causes.

International Harvester Company—Hamilton

Apprentice training on a small scale has been carried on for about 25 years. There are at present 10 apprentices in tool and die making, machinists, and metal pattern making, under written indentures covering 4 years (8160 hours) of which the first 6 months is a probationary period, during which time either party may terminate the indenture. After the probationary period the company has the right to discharge the apprentice and terminate the agreement, if the apprentice has not fully carried out the terms of his agreement, or if the company determines him not to be competent to learn the trade.

Wages are increased every 3 months approximately, and a credit towards the purchase of tools and text books of \$50.00 in each of the first two years, and \$25.00 in each of the second two years is given to each apprentice, on the recommendation of the Works Training Director. These tools and books remain the property of the company until the satisfactory completion of apprenticeship, when the apprentice receives a certificate, and the tools and books become his property.

The Works Training Director is in general charge of the apprentices, but instruction on the job is given by the foreman, or a skilled older worker, following a schedule of work processes. This is supplemented by class training in mathematics, drafting, and other technical or non-technical subjects pertaining to the trade, either at the local technical school or at the company plant. This training is given weekly in academic subjects, and monthly in other subjects.

The apprentices are selected from young men, 17 to 22 years of age (preferably up to 19), who have successfully completed four years in a high school, preferably in a technical course.

Canadian Kodak Company—Toronto

For about 11 years there has been an apprentice plan for tool and die makers in operation, with 7 apprentices enrolled at present. Some years ago additional plans for apprentice electricians, pipefitters, and sheet metal workers were commenced, but had to be abandoned after a few months, owing to some conflict with the apprentice regulations of the Provincial Labour Board under the Apprenticeship Act.

The apprentices are selected from young men 16 to 20 years of age who have had at least three years in a technical school. There is no written indenture, and the period of training is approximately $4\frac{1}{2}$ years, which may be lengthened or shortened somewhat, in accordance with the prior experience or progress of the individual apprentice. There is a schedule of work processes for practical work, but no class instruction is given, although apprentices are required to attend evening classes at the technical school, in mathematics and shop trigonometry for one year, and drafting for two years, unless they have already had the equivalent of this education.

The apprentices work under the direct supervision of the machine shop foreman, and have the guidance of a competent tool and die maker. Records are kept of the apprentices' conduct, performance, and attendance, and each apprentice is rated periodically. Wage increases are given every three or six months, in accordance with the rate schedule, but there are no trade tests or examinations, other than the periodic rating, and no certificate is given on completion.

General Motors of Canada—Oshawa

An apprentice program was established in 1938 and has been carried on ever since. At present there are 31 apprentices in the trades of tool and die makers, machinists, draftsmen, pattern makers, millwrights, plumbers and electricians. Applicants are selected from young men at least 17 years of age, of

good moral character, who are found physically sound by the plant doctor. Preference is given to those applicants who have had at least two years training in a recognized vocational school.

Every applicant serves a period of 6 months probation, at the end of which time, if found satisfactory, a written indenture is signed by the applicant, his parent or guardian, and the company, for a definite period of training in the trade indicated. For tool and die makers this period is five years, and for the other trades, four years. Apprenticeship is divided into periods of approximately six months, or 900 hours work, and wage increases from 3 cents to 5 cents per hour are given at the end of each of these periods. The company reserves the right at its sole discretion to discharge any apprentice at any time for failure to conform to company rules, indifference to duties, or improper conduct.

The apprentice program is under the direction of the Industrial Relations Manager who, along with the shop foreman, directs the policy and sees that proper instruction is given by an experienced journeyman, under whose direction the apprentice is placed. The collective labour agreement between the company and the union specifically states that indentured apprentices shall not be subject to the terms of the agreement. There is, however, provision for the appointment by the union of an apprentice committee of three journeymen, whose duties shall be to negotiate with the management on issues involving the effect of the employment of apprentices on the employment of journeymen, and to recommend to management other matters that may involve training of apprentices by journeymen on the job. The number of new apprentices employed is to be determined on the basis of the number of journeymen employed. The present ratio of apprentices to journeymen is 1 to 10.

No apprentice under the age of 18 is required to work on a night shift. The number of working hours per week is fixed at 44, and no apprentice is required to work overtime. The apprentices may take advantage of the company's group health and life insurance scheme, in the same manner as regular employees, and arrangements may also be made through the company for the purchase of trade tools by the apprentice. These purchases may be paid for outright or by payroll deductions.

A definite schedule of work operations is laid down for each trade, and must be supplemented by technical instruction of the Oshawa Vocational School. This used to be given one day per week on company time, but at present the facilities of the school are so crowded that the apprentice training is given in evening classes at least one night per week. The subjects covered are: blueprint reading and drawing, shop mathematics, mechanics, metallurgy, electricity, elementary science. The school furnishes reports from time to time to the company, on the progress of each apprentice. On the successful completion of his apprenticeship, each apprentice is given a certificate of competency signed by the general manager of the company.

The schedule of operation for the tool and die making apprentices, is as follows:

	<i>Months</i>		<i>Months</i>
Tool Crib	3	Inspection Department	3
Drilling (Speed drills and up to 24" Drilling Machines)	3	Heat Treating, Blacksmith Shop, Arc and Acetylene Welding....	6
Shapers	3	Heavy Machine Work, Planer, Vertical and Horizontal boring.	3
Lathes	3	General Bench Work, Radial Drills, Filing Machines	6
Vertical and Horizontal Milling Machines	6	Tryout and repair work for production	3
Surface Grinding	3	Assembly and building of new dies, jigs and fixtures	12
Cylindrical Grinding (Internal and External)	3		
Drafting Room (Tool and Die design)	3		

Naval Dockyards—Halifax

The Naval Dockyards at Halifax represents one of the few apprentice plans being carried on by the Department of National Defence of the Dominion Government. It has been in operation since 1929, and there are at present 46 apprentices in the trades of machinists, electricians, joiners, boilermakers, copper-smiths, pipe fitters, shipwrights, sheet metal workers, instrument makers, pattern makers, ordnance, torpedoes. Apprentices are usually selected from the relatives of employees, or from the local schools, following personal interviews. They must be between 17 and 22 years of age, and have completed Grade 10 in education. There is a written indenture covering four years (8,000 hours), signed by the apprentice, his parent or guardian, and the employer. The dockyard has the right at any time to discharge an apprentice for wilful disobedience, negligence or misbehaviour. There is a fixed schedule of wages, with increases every six months and a bonus if the apprentice has passed the trade tests for the previous six months' period. In addition to the above, each apprentice on the successful completion of his apprenticeship, is paid a bonus of \$100.

The general supervision of apprentices is under the civilian personnel officer, and the actual instruction on the job is given by a foreman or a suitable older worker, following a regular schedule of work processes. All apprentices are registered with the province under the Provincial Apprenticeship Act, and must attend technical training classes for two half days per week for about nine months in the year at the Provincial Apprenticeship Centre at Halifax, during which time they receive their regular rate of pay from the dockyards. Monthly tests are given at the centre, and reports are furnished to the dockyard as to attendance and progress. A certificate is given each apprentice on the successful completion of his period of apprenticeship.

Halifax Shipyards

An apprentice program has been operating at the Halifax Shipyards for 12 years, in co-operation with the provincial apprenticeship authorities, and as part of a collective labour agreement. There are at present 47 apprentices in the following trades: sheet metal workers, marine electricians, shipwrights, joiners, machinists, shipfitters and boiler makers. Applicants must have a medical certificate of fitness, and grade 10 education, and be between the ages of 16 to 21. They are often referred by the vocational guidance officials of the Education Department.

The period of apprenticeship for each trade is four years (8,000 hours), of which the first three months is probationary, during which the arrangement can be terminated by the employer or the apprentice. A written indenture is signed by the apprentice, his parent or guardian, and the employer, which sets forth the schedule of wages, with increases every six months. The employer has the right at any time to discharge the apprentice for wilful disobedience, negligence or misbehaviour, and may cancel the apprenticeship owing to the shutdown of the shipyards or lack of employment. In this event, the shipyards agree to take all reasonable steps to assist the apprentice in finding another employer, and in continuing his apprenticeship with him.

There is a schedule of work processes followed for each trade. Practical instruction is given on the job by the foreman. The apprentice must attend technical instruction in related subjects for two half days per week for about nine months each year, at the Provincial Apprenticeship Centre in Halifax, and is paid at his regular rate by the employer while in attendance. In addition he agrees to follow, in his own time and at his own expense, a theoretical course related to his trade. Monthly tests are given at the apprenticeship centre, and reports are sent to the employer with regard to his attendance and progress. On the completion of the full period of his apprenticeship, each apprentice is given a certificate for his trade.

Massey Harris Company, Toronto

Apprentice training was carried on for many years in the Toronto plant, but was discontinued about 25 years ago. It was, however, renewed in a revised form in 1946. At the present time there are 33 apprentices in the following trades: tool and die makers, pattern makers (both wood and metal), foundry, drafting. Apprentices are selected from suitable applicants who are at least 16 years of age. Preference is given to those apprentices between 16 and 18 years old who have had approximately 3 years of high school or technical school training.

The length of apprenticeship is 4 years (8,800 hours), of which the first three months is a probationary period. On the completion of this period an indenture is signed by the apprentice, his parent or guardian, and the company. Included in its terms are agreement by the apprentice to attend whatever class training is prescribed, and also to provide certain tools at his own expense. The company may at any time terminate the indenture and discharge the apprentice for causes such as inability to learn, unreliability, unsatisfactory work, insubordination, failure to attend class instruction. The wages paid the apprentice are at the prevailing rate of pay established by the company, and increases are given every six months.

The foreman is responsible for the instruction on the job, and a schedule of work processes is followed, but there are no periodic trade tests or final examinations, other than reports obtained from the technical schools giving the attendance and proficiency of the individual apprentice, who is required to attend evening classes at these schools during his entire apprenticeship training. On the completion of the full period of apprenticeship a certificate is given signed by the works manager.

The plan is not part of a collective labour agreement, but there is informal consultation concerning it with the union.

APPENDIX "A"

Typical Apprenticeship Indentures

PROVINCE OF NOVA SCOTIA

DEPARTMENT OF LABOUR

CONTRACT OF APPRENTICESHIP

THIS CONTRACT, made and entered into the.....day of.....19....
 between.....(Hereinafter called the "Employer")
 of the First Part, and.....having been
 born on the.....day of.....19.... (hereinafter called
 the "Apprentice") of the Second Part, and.....(Parent)
 (Guardian) of the Third Part.

WITNESSETH:

1. That the Apprentice having been found medically fit, does of his own free will and with the consent of the party of the Third Part, by these presents agree:—

- (a) To bind himself as an Apprentice to the said Employer in the trade or occupation of
 for a period of.....years, commencing on theday of.....19....
- (b) To serve faithfully, honestly and diligently the Employer and to obey all lawful and reasonable demands and requirements of the Employer or those duly placed in authority over him.
- (c) Not to disclose or communicate to any person whomsoever any information relating to the business of the Employer.
- (d) Not to be interested directly or indirectly, either as a paid agent or servant, in any business or undertaking other than that of the Employer.
- (e) To attend, in accordance with the Regulations made under the Apprenticeship Act such classes as may be decided upon for the purpose of receiving technical or other education.

2. The Employer does by these presents agree:—

- (a) To bind himself to receive the said Apprentice for the period herein stated and to teach efficiently or cause to be taught efficiently the said Apprentice in the trade or occupation specified.
- (b) To refund to the said Apprentice the reasonable class fee expended on technical instruction where free instruction is not available to such Apprentice provided the Apprentice has attended not less than seventy-five percentum of the full number of classes prescribed for such Apprentice by the Regulations made pursuant to the provisions of the Apprenticeship Act, and provided further that the Principal of the technical institution or the person in charge of such classes has reported to the Employer that satisfactory diligence has been shown by the said Apprentice.
- (c) To regard the first 500 hours as a probationary period, but in no case to extend this period beyond three calendar months.
- (d) To apportion the whole period of apprenticeship to the teaching of skills and technical information according to the following schedules.

SCHEDULE OF PROCESSES TO BE LEARNED (As per attached schedule of processes.)

OUTLINE OF TECHNICAL INSTRUCTION: (as per attached outline of technical instruction.)

The hours of work of the Apprentice shall not exceed hours per week. The Apprentice may work overtime, but only the hours of lapsed time shall be counted towards the total hours of apprenticeship. The Apprentice shall devote not less than hours during each year to the approved technical instruction and where he attends regular organized classes for a part or the whole of a day or night shift of labour he shall be paid for these hours at the regular rate to which he is entitled for productive work.

(e) To pay the Apprentice wages not less than set forth in the following schedule:

		of Prevailing Journeyman's rate			
1st 1000 hours.....%		"	"	"	"
2nd 1000 hours.....%		"	"	"	"
3rd 1000 hours.....%		"	"	"	"
4th 1000 hours.....%		"	"	"	"
5th 1000 hours.....%		"	"	"	"
6th 1000 hours.....%		"	"	"	"
7th 1000 hours.....%		"	"	"	"
8th 1000 hours.....%		"	"	"	"
9th 1000 hours.....%		"	"	"	"
10th 1000 hours.....%		"	"	"	"

- (f) To furnish annually a report on the progress and conduct of the Apprentice to the Apprenticeship Committee, through the Director of Apprenticeship.
 (g) To endorse and sign this contract on completion of the period of Apprenticeship and to hand it over to the Apprentice as his property.

IN WITNESS WHEREOF THE CONTRACTING PARTIES HERETO HAVE
 HEREUNDER SET THEIR HANDS THE DAY AND YEAR AFORESAID.

As Witnesses:

1. ....	.....
2. ....	..... Employer
1. ....	.....
2. ....	..... Apprentice
1. ....	.....
2. ....	..... Parent or Guardian

Registered at the office of the Director of Apprenticeship this.....day of
19....

PROVINCE OF MANITOBA

THIS AGREEMENT is made this.....day of.....19....
 between(hereinafter called "Employer") of the First Part
 and(hereinafter called "the Apprentice") of the Second Part
 and(hereinafter called "the...") of the Third Part.

WHEREAS the parties hereto are desirous of entering into an Agreement of Apprenticeship pursuant to the provisions of The Apprenticeship Act and the rules and regulations made thereunder;

AND WHEREAS.....is the.....of the Apprentice who was
 born at.....on the.....day of.....19....;

NOW THEREFORE THIS AGREEMENT WITNESSETH that in consideration of the premises and the mutual covenants herein contained the parties hereto agree as follows:

1. The Apprentice of his own free will and accord and with the consent of the..... hereby binds himself to serve the Employer as his apprentice in his trade of..... for the term of.....to be computed from the.....day of.....19....

2. The Employer accepts the Apprentice as his apprentice during the said term, and will during the said term to the best of his power, skill and knowledge instruct the Apprentice or cause him to be instructed by the best available ways and means in the trade ofnow carried on by the Employer at.....in the Province of Manitoba.

3. The Apprentice during the said term, shall (a) truly and faithfully serve the Employer in the said trade of.....; (b) maintain secrecy with respect to the Employer's trade and business secrets; (c) obey the Employer's lawful commands; (d) not absent himself from the Employer's service during his usual working hours without the permission of Employer; (e) not do or knowingly suffer any damage to be done to the goods and property of the Employer or any goods or property which may come into his keeping during the course of his employment; (f) show due regard for the tools and goods of the Employer and avoid damage and waste of such tools and goods; (g) furnish to the Employer satisfactory reasons for any absence from his employment; (h) attend regularly such classes in trade training and related subjects as may be prescribed by The Provincial Apprenticeship Board (hereinafter called "the Board").

4. There shall be a probationary period consisting of the first three months of the Apprentice's employment as an apprentice (which three months shall begin on the registration of this agreement) during which either the Apprentice or the Employer may terminate this agreement at will, provided however, that if the Apprentice is a minor he shall obtain and produce to the Director of Apprenticeship (hereinafter called "the Director") the written consent of his.....before he may so terminate this agreement.

5. The Employer agrees to pay to the Apprentice during the term of this Agreement wages on an hourly basis, on the following scale:

It is hereby provided however in accordance with paragraph (a) of subsection (3) of Section 10 of The Apprenticeship Act, that where rates of wages of the Apprentice have been determined by a collective labour agreement, those rates shall apply if they are higher than the minimum rates established by, or pursuant to, The Apprenticeship Act or any other act or laws in force in the Province.

6. The rate of wages as herein provided may be altered as follows: (a) any party hereto may make application in writing to the Director for a revision of the rate of wages fixed hereby; (b) the Director shall forthwith upon the receipt of such application serve each party to the Agreement with a notice in writing of the application either personally or by mailing a copy of such notice to him at his last known address with postage prepaid, and in such notice the Director shall appoint a time and place for hearing representations in support of and against the application; (c) the Director shall at the time and place so fixed hear the representations in support of or against the application which any person there may desire to make, and thereafter the Director, subject to the approval of the Board, may alter or amend the rates of wages provided herein, and this Agreement and the rates of wages as so altered or amended and approved by the Board shall be binding upon all the parties hereto.

7. (1) The Employer shall give the Apprentice instruction, including practical training while actually engaged in the work of the trade in the major work processes as prescribed in the trade rules made in accordance with provisions of paragraph (j) of subsection (1) of section 2 of The Apprenticeship Act.

(2) The Apprentice shall take vocational instruction as prescribed by the aforesaid trade rules.

(3) If out of any consecutive 12 months of the period of apprenticeship fixed hereby the Employer fails to provide the Apprentice with at least 2,000 hours of employment inclusive of the time spent by the Apprentice at day classes, the Apprentice shall complete a full 2,000 hours of such employment before being advanced to the programme for the next 12 months of the apprenticeship period.

8. If the Apprentice fails to attend day classes which he is required to attend he shall forfeit his remuneration for the period of such non-attendance.

9. If the Apprentice without reasonable excuse fails to attend either day or evening classes which he is required to attend, the Director may cancel this Agreement on application by the Employer if, in the opinion of the Director, such non-attendance is good and sufficient reason for the cancellation.

10. Where in the opinion of the Board the Apprentice has not made satisfactory progress in his training, the period of apprenticeship provided herein may be extended from time to time as required by the Board until the Board is satisfied as to his competency. Subject to the approval of the Board, the Apprentice may temporarily be placed for training under a person other than the Employer, and other changes may be made in the training prescribed hereby, provided, however, that before the Apprentice is so placed or any such changes made the Employer shall give to the Director ten days' notice in writing thereof.

11. For any cause which the Director considers sufficient to warrant a change of employer, the Apprentice may be transferred to another employer.

12. The Employer shall not require the Apprentice to work in excess of the working day and working week prevailing or as may be fixed from time to time in the trade, for journeymen; provided that males under 17 years of age and females shall not work in excess of 48 hours per week.

13. Overtime work shall not reduce the period of apprenticeship prescribed herein.

14. This Agreement shall be subject to the provisions of The Apprenticeship Act and the regulations and rules made thereunder and so far as they are applicable hereto they shall be deemed to be part of this Agreement as though incorporated herein.

15. If the Apprentice shall at any time during the term prescribed herein be wilfully disobedient to the lawful commands of the Employer or his authorized representative or be negligent in the conduct of his work, then in any such case the Employer may apply to the Director for termination of the Agreement.

16. For any sufficient cause approved by the Director this agreement may be cancelled by any of the parties hereto.

IN WITNESS WHEREOF the parties hereto have hereunto set their hands and seals the day and year first above written.

SIGNED, SEALED and DELIVERED
in the presence of

Registered at the Office of the Director of Apprenticeship this.....day of.....19....

No.

.....
Director of Apprenticeship

BRITISH COLUMBIA

DEPARTMENT OF LABOUR

CONTRACT OF APPRENTICESHIP

THIS CONTRACT, made in triplicate the.....day of....., 19....
between(hereinafter called the
"Employer") of the First Part, and
a person at least fifteen years of age, having been born on the.....day of
.....19.... (hereinafter called the "Apprentice"), of the Second Part,
and(Parent) (Guardian) of the Third Part,

WITNESSETH:

1. That the Apprentice, in consideration of the agreements herein contained and on the part of the Employer to be performed, does of his own free will, and with the consent of the party of the Third Part, by these presents agree:—

(a) To bind himself as an Apprentice to the Employer in the trade or occupation offor a period of years, commencing on the day of 19....

(b) To serve faithfully, honestly, and diligently the Employer, and to obey all lawful and reasonable demands and requirements of the Employer, or those whom the Employer duly places in authority over him.

2. That the Employer, in consideration of the agreements herein contained and on the part of the Apprentice to be performed, does by these presents agree:—

(a) To bind himself to receive the Apprentice for the period stated and to teach efficiently or cause to be taught efficiently the Apprentice in the trade or occupation specified:

(b) To pay the said Apprentice wages at *not less* than the following *minimum* rates per week:—

1st six months	7th six months
2nd six months	8th six months
3rd six months	9th six months
4th six months	10th six months
5th six months	11th six months
6th six months	12th six months

3. The Employer and the Apprentice each for himself is further agreed:—

(a) That should any party to this Contract at any time be of the opinion that the rates of wages set out are unfair in view of economic conditions existing in the trade, such party may apply in writing to the Director of Apprenticeship for revision. On receipt of such application, the Provincial Apprenticeship Committee may make such inquiry as they consider adequate and make recommendations to the Minister accordingly. All parties to this Contract agree that the decision of the Minister shall be final and binding to all parties thereto, and this Contract shall read and be construed as though rectified in accordance with such decision.

(b) That the hours of work for Apprentices shall be the same as those established for Journeymen in the Trade. An Apprentice working overtime shall be paid additional remuneration based pro rata on that recognized as the overtime rate for Journeymen.

(c) To be subject to and carry out the regulations made by the Lieutenant-Governor in Council governing the employment and training of the Apprentice.

IN WITNESS WHEREOF the contracting parties hereto have hereunder set their hands the day and year aforesaid.

As witness:

.....
Employer

.....
Apprentice.

.....
Parent or Guardian.

Registered at the office of the Director of Apprenticeship this.....day of..... 19.....

.....
Director of Apprenticeship

GENERAL REGULATIONS GOVERNING APPRENTICESHIP

1. Obligations of Apprentice during period of Apprenticeship:—

(a) To render diligent service to his Employer and to avoid damage or waste of equipment or goods:

(b) To attend regularly his place of employment, and in addition to make himself proficient by attending such classes in Trade-training and related subjects as may be required of him, and generally to be subject to and obey all regulations made by the Provincial Apprenticeship Committee governing his Apprenticeship:

(c) To notify immediately the Director of Apprenticeship of any difficulty that may occur to interfere with the carrying-out of the terms of his Apprenticeship Contract.

2. Obligations of an Employer of an Apprentice:—

(a) To provide adequate training of an Apprentice in all branches of the Trade in so far as his facilities and the character of his work will permit:

(b) To pay wages not less than on the Scale set out in the Apprenticeship Contract and to keep the Apprentice employed so long as work is available:

(c) To abide by and carry out the regulations governing Apprenticeship made by the Provincial Apprenticeship Committee and to facilitate the Apprentice doing likewise:

(d) To notify immediately the Director of Apprenticeship when employing a minor in any designated Trade, and advise him of any difficulty that may occur to interfere with the carrying-out of the terms of an Apprenticeship Contract.

CANADIAN PACIFIC RAILWAY COMPANY

APPRENTICE INDENTURE

This Indenture made in duplicate the.....day of.....
19....., between.....of the.....of.....
in the presence of.....Parent (or Guardian).....
son (or Ward) and now of the age of....., and the Canadian Pacific
Railway Company.

AGREED AS FOLLOWS:

(1) That the said.....(Parent) (or Guardian), with the consent of the said minor, do hereby place and bind the said minor as an apprentice to the said Company to learn the art and trade of.....for the term of.....years from this date subject, however, to the conditions in the current Wage Agreement affecting the employment of apprentices.

(2) That the Company hereby agrees to take the said minor as an apprentice and give him the opportunity to learn the said art and trade, and the Company promises to pay to the said minor for his faithful services during the term above named to be performed, the apprentice rates mentioned and provided for in the current Wage Agreement for the time actually worked by the said minor.

(3) Nothing herein contained shall bind the Company to keep the said minor as an apprentice should he become insubordinate, guilty of misconduct, neglectful of duty, inefficient or unsatisfactory to his superior officers in any respect.

(4) It is further agreed that if during the first six months of the said term it shall appear to the Company that the said minor is unfit physically or mentally to learn or acquire the said art and trade, it shall be lawful for the said Company to declare this Agreement at an end and to discharge the said minor from its employment.

(5) It is also agreed and understood that the said minor shall, during the said term of this apprenticeship, attend such classes for instruction in mechanical drawing, practical mathematics and mechanics as the Company may arrange for and that he shall be subject to the rules governing the services of employees of the Company.

(6) It is also agreed and understood, after three years service, it will be compulsory for Apprentices at outside points to move to larger shops, and Apprentices at larger shops to move to outside points, when exchange is available, or vacancies occur, for the purpose of acquiring wider experience, consideration being given to conditions occasioning family distress resulting from such transfers.

(7) It is specially understood and agreed that the said minor shall make up to the said Company any time which he may have lost during the said term of apprenticeship by whatever cause it may happen from time to time, before he shall be deemed to have fully completed his said apprenticeship.

(8) The Company will, upon completion of a satisfactory apprenticeship, grant the apprentice a certificate of apprenticeship.

Witness on behalf of the Company (Signed) Parent or Guardian
..... (Signed) Apprentice

APPROVED: Declared to before me this.....day
..... of....., 19....
Head of Department Commissioner for taking affidavits

CANADIAN GENERAL ELECTRIC

.....(hereinafter called the "Apprentice") having completed to the satisfaction of the CANADIAN GENERAL ELECTRIC COMPANY LIMITED (hereinafter called the "Company"), a trial period of at least three months' service with the Company.

The undersigned.....residing at.....
Guardian

Parent

of said Apprentice, who resides at.....was born on the.....
day of..... in the year.....at..... agrees that said Apprentice
will faithfully serve the Company at its works at.....as.....
APPRENTICE for a term of four years (as hereinafter specified) commencing on.....

1. The aforesaid term shall consist of four calendar years and all lost time shall be made up at the end of each year before the next year of the apprenticeship course shall commence. There shall be credited to the first year of the course the time which the apprentice shall have already served during the trial period above mentioned.

2. Whenever in its judgment the state of business demands it, the Company may shorten the hours of work or suspend the Apprentice wholly or in part and the making up of time so lost shall be in the discretion of the Company. The Company may at any time terminate this Agreement and discharge the Apprentice for cause.

3. If the number of working hours applicable to the Apprentice, or applicable generally to the Company's employees at the above-named Works, be changed pursuant to any Dominion or Provincial law or regulation, or if in the judgment of the Company the state of business warrants the number of working hours required for each year may be changed accordingly.

4. The Apprentice shall willingly perform such work in the shop or office as in the judgment of the Company will prepare him efficiently for his future career. He shall also regularly and willingly attend class room exercises or lecture courses and do a reasonable amount of home study work as prescribed by the Company.

5. The Apprentice shall perform his duties with punctuality, diligence and fidelity, and conform to all rules and regulations prevailing at the above-named Works; he shall not absent himself from work without permission, except in case of sickness, legal holidays, or days on which the above-named Works are closed.

6. The Company agrees that it will cause to be carefully and skillfully taught to the Apprentice, the trade or other branch of the business of the Company to which the Apprentice is hereby indentured and that upon the completion of the full term of apprenticeship to the satisfaction of the Company it will give the Apprentice a "Certificate of Apprenticeship", as a record of his efficiency and knowledge and his standing in the educational work, and that he has served his time at such trade.

7. The Guardian, at his own expense, will supply the Apprentice with the following tools:
.....

8. The Apprentice shall be paid for each hour of actual service at the prevailing rates of pay established by the Company for Apprentices in the trade above-named, which rates of pay shall be not less than that agreed upon for the period of indenture.

9. The final year of the apprenticeship course, together with the rate of compensation therefor, shall be extended until all of the prescribed educational work is completed in a manner satisfactory to the Company.

10. All wages or other sums earned by the Apprentice shall be paid to and, if required, receipted for by the Apprentice.

Dated.....(L.S.) Parent or Guardian
I hereby consent to the provisions of the above agreement and agree to be bound by the same.

.....(L.S.)
(Witness) (Apprentice)

CANADIAN GENERAL ELECTRIC COMPANY LIMITED

By.....Works Manager

This is to certify that.....has completed a four (4) year
apprenticeship course as.....and has complied with the requirements
of the above indenture.

CANADIAN GENERAL ELECTRIC COMPANY LIMITED

Date.....
(Works Manager)

NEW YORK STATE APPRENTICESHIP COUNCIL

APPRENTICESHIP AGREEMENT

THIS AGREEMENT, entered into this.....day of.....19.... between
 (Name of Union or Joint Apprenticeship Committee)
hereinafter referred to as the EMPLOYER'S AGENT*,
 and....., born.....
 (Name of Apprentice)
 hereinafter referred to as APPRENTICE (and if a minor).....
 (Name of Parent or Guardian)
 hereinafter referred to as his { Parent
 { Guardian

WITNESSETH that the EMPLOYER'S AGENT*, the APPRENTICE, and his PARENT (or GUARDIAN)
 desire to enter into an agreement of apprenticeship in conformity with the apprenticeship
 standards for the.....of.....
 (Name of Trade) (Name of City or Area)

THAT the EMPLOYER'S AGENT* will endeavour to secure employment with a participating
 employer or employers so that the apprentice, during the term of apprenticeship, will learn
 the trade or craft of..... in accordance with the terms and
 conditions of employment set forth on the reverse side of this agreement and made part hereof.

THAT the APPRENTICE agrees to perform diligently and faithfully the work of said trade or
 craft in conformity with the terms and conditions set forth on the reverse side of this agree-
 ment and made a part hereof.

THAT the PARENT (or GUARDIAN) promises that the APPRENTICE will duly perform all
 obligations undertaken herein.

THAT the apprenticeship term begins on the.....day of.....19....
 and terminates upon the completion by the APPRENTICE of.....(years or hours) of
 employment in said trade or craft, as stipulated on the reverse side of this Agreement.

THAT the EMPLOYER'S AGENT* may arrange for the transfer of the apprentice from one
 employment to another to insure training and reasonably continuous employment.

THAT this agreement shall be registered with the New York State Apprenticeship Council.

THAT during the probationary period the registration of this agreement may be terminated
 by either party by written notification to the other and to the said Council but after the
 completion of the probationary period, such notification shall state the reasons for termination;
 and

THAT either party may at any time consult with the New York State Apprenticeship
 Council concerning the interpretation of any part of this agreement over which there is a
 difference.

IN WITNESS WHEREOF THE parties hereunto set their hands and seals:

..... (Seal) (Seal)
 (Apprentice) (Employer's Agent)*
 By: (Seal)
 (Address) (Officer)
 (Seal)
 (Parent or Guardian) (Address)

APPROVED BY THE.....(City).....APPRENTICESHIP COMMITTEE

byon....., 19....
 (Director of Apprenticeship)

APPROVED BY THE NEW YORK STATE APPRENTICESHIP COUNCIL,
 byon....., 19....

* An Employer's Agent may be a union or an approved Joint Apprenticeship Committee.

TERMS AND CONDITIONS

1. TERM OF APPRENTICESHIP, CREDIT, AND PERIOD OF PROBATION.

The term of apprenticeship shall be.....(years, hours) less.....
 (years, hours) credit for the previous experience or training. The first.....
 (hours, months) is the probationary period.

2. MAJOR PROCESSES IN WHICH THE APPRENTICE IS TO RECEIVE INSTRUCTION AND EXPERIENCE. (Under this heading state the different branches of the trade to be taught and the approximate time the apprentice shall work at each branch.)

3. GRADUATED SCALE OF WAGES TO BE PAID THE APPRENTICE.

4. NUMBER OF HOURS PER DAY AND TOTAL NUMBER OF HOURS PER WEEK TO BE WORKED BY THE APPRENTICE.

5. NUMBER OF HOURS OF SCHOOL INSTRUCTION PER YEAR TO BE ATTENDED BY APPRENTICE. (144 hours per year is the minimum requirement.)

The apprentice shall attend classes of related instruction for.....
 hours per year for.....years and the apprentice shall (shall not) be paid
 for hours of attendance.

6. SPECIAL PROVISIONS.

That all provisions contained in said apprenticeship standards covering the employment and training of the apprentice are hereby made part of this agreement with the same effect as though expressly written herein.

APPENDIX "B"

Trades Designated Under Provincial Apprenticeship Acts—June 30, 1948

—	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.
Aviation Mechanics.....								+
Barbers.....			+	+		+		+
Body and Fender Repairs.....		+	+	+	+	+	+	+
Boilermakers†.....	+	+	+					+
Blacksmiths.....		+			+	+		
Bricklayers.....	+	+	+	+	+	+	+	
Cabinetmakers.....		+	+					+
Carpenters.....	+	+	+	+	+	+	+	+
Combustion Engine Mechanics.....					+			
Coppersmiths†.....	+	+						
Drafting.....		+						
Electricians Shop.....	+	+	+		+	+	+	+
Electricians Construction.....	+	+	+	+	+	+	+	+
Electric Appliances.....								+
Fur Industry.....			+					
Gasfitters.....						+	+	
Glassmaking.....								+
Hairdressers.....			+	+		+		
Instrument Making†.....	+							
Jewelry Repairs.....								+
Lithographers.....			+					+
Machinists†.....	+	+						+
Marble Workers and Tile Setters..			+		+			
Millwrights.....		+						
Motor Mechanics.....	+	+	+	+	+	+	+	+
Moulders†.....	+	+	+		+			+
Office Machine Mechanics.....								+
Painters.....	+	+	+	+	+	+	+	+
Patternmakers†.....	+	+						+
Plasterers.....	+	+	+	+	+	+	+	+
Plumbers.....	+	+	+	+	+	+	+	+
Printing.....		+	+			+	*+	
Pipefitting†.....	+							+
Radio Maintenance and Repairs...							+	+
Refrigeration Mechanics.....		+		+	+			
Steamfitters.....	+	+	+	+	+	+	+	+
Sign-painters.....								+
Ship Building†.....	+							+
Stone Masons.....	+	+	+	+	+	+	+	
Stone Cutters.....		+						
Sheet Metal†.....	+	+	+	+	+	+	+	+
Shoe Industry.....			+					
Tailors Custom.....			+		+			
Watch Repair.....			+					
Woodworkers Factory.....		+	+		+			
Total Trades.....	19	25	25	14	19	17	15	25

*Weekly Newspapers only.

† Designated for certain companies only.

In New Brunswick trades are not designated as in other provinces but are trades "appropriate for apprenticeship".

In Quebec, Apprenticeship in these trades is controlled by Joint Committees in different areas. They are not "designated" as in other provinces.

APPENDIX "C"

Apprentices Registered June 30, 1948

—	N.S.	N.B.	Ont.	Man.	Sask.	Alta.	B.C.	Total
Barbers.....			18		53		46	117
Blacksmiths.....			1	7	1			9
Body and Fender Repair.....		5		39		98		142
Boiler Shop.....	6						33	39
Boat Building.....							56	56
Bricklaying.*.....	10	12	500	50	19	45	10	634
Cabinet Making.....		7	4					11
Carpenters.....	49	51	688	109	104	193	276	1,470
Coppersmiths.....	1		6					7
Dressmaking.....			1				11	12
Electrical Construction.....	65	17	817	114	58	144	148	1,363
Electrical Maintenance.....			7	16				23
Glass Workers.....			1				20	21
Hairdressing.....			161				29	190
Iron Workers.....							14	14
Jewellery and Watch Repair.....			3				43	46
Joiners.....	5							5
Leadburners.....							6	6
Machinists.....	44	20	60				285	409
Masonry.....			7					7
Motor Vehicle Repair.....		51	2,838	138	104	520	274	3,925
Millworkers.....		14						14
Moulders.....		1					25	26
Office Machine Mechanics.....							13	13
Painting and Decorating.....	3	8	109	43	18	35	33	249
Pattern Makers.....	2	1	7				18	28
Pharmaceutical Chemistry.....							112	112
Pipe Fitters.....	2	1	2					5
Plastering.....	8		134	34	5	38	37	256
Plumbing and Steamfitting.....	53	96	1,079	79	17	187	104	1,615
Printing.....		1	4		10	37	60	112
Sheet Metal.....	9	8	268	61	22	108	133	609
Shipwrights.....	22							22
Sign Painters.....							7	7
Tailoring.....				15				15
Tilesetters.....				6				6
Upholstery.....							11	11
Welders.....			2		6			8
Woodworkers.....			54	20				74
Miscellaneous Trades.....	5	4	9			4	21	43
Total.....	284	297	6,780	731	417	1,409	1,825	11,743

* Includes Masonry in Alberta, Saskatchewan, Manitoba.

* Includes Masonry and Plastering in New Brunswick.

Figures for Quebec not available.

APPENDIX "D"

Standards for Ratios, Wages and Length of Apprenticeship by Provinces

—	Apprentice- ship in Years	Ratio of Apprentices to Journeymen	Wages of Apprentices	
			Periodic Increases	In Percentage of Journeymen's Rate
BRICKLAYERS (*—Marble work- ers and tile setters. †—Includes masons).				
N.S.†	4	1 to 3	6 mos	45 50 55 60 65 70 75 80
N.B.	3 4 masonry	Left to local committee	12 mos	30 50 80 (masonry) 30 50 65 80
Que.	4	1 to 5	12 mos	50 60 70 85 (Montreal)
Ont.†	4	1 to 1, 1 to 8 Max. of 3 Apps to an Employer	12 mos	30 40 50 70
Man.	4	1 to 1, 1 to 5, 1 to 10† 1 to 1, 1 to 4*	12 mos	40 50 60 70
Sask.†	4000 hrs to 4 yrs	1 to 3 for 1st year—2 to 3 afterwards	12 mos	Wages in cents per hr 56 80 1.00 1.12
Alta.†	4	1 to 3	12 mos	35 45 60 80
B.C.	Not designated			
CARPENTERS (*) — Includes factory woodworking) N.S.				
	4	1 to 6	6 mos	50 55 60 65 70 75 85 90
N.B.	4	Left to local committee	6 mos	40 40 45 50 55 60 70 80
Que.	4	1 to 5	12 mos	50 60 70 85 (Montreal)
Ont.	4	1 to 1, 1 to 8, 1 to 8 in each district	12 mos	30 40 50 70
Man.*	4	1 to 1, 1 to 5	6 mos	35 40 45 50 55 60 65 75
Sask.	4	2 to 4	6 mos	50 55 60 65 70 75 85 95
Alta.	4	1 to 1, 1 to 5	6 mos 12 mos	35 40 50 70 90
B.C.	4	Set by local committee	6 mos	25 30 35 40 50 60 70 85
ELECTRICIANS N.S.	4	1 to 3	6 mos	45 50 55 60 65 70 75 80
N.B.	5	1 to 5 Can be changed by local committee	6 mos	35 40 45 50 55 60 65 70 75 80
Que.	4	1 to 1	12 mos	40 50 60 75 (Montreal)
Ont.	4	1 to 1, 1 to 3, 1 to 3 in each district	12 mos	30 40 50 70
Man.	4	1 to 1, 1 to 5	6 mos	25 30 35 40 45 50 55 65 75 85
Sask.	4	1 to 1	12 mos	50 57 65 80 in cents per hr
Alta.	4	1 to 1, 1 to 2	6 mos	35 40 45 50 55 60 70 80
B.C.	Const. 4 Shop 5	Set by local committee	6 mos	25 30 35 40 50 60 70 85 25 30 35 40 45 50 55 65 75 85

APPENDIX "D"—*Con.*

—	Apprentice- ship in Years	Ratio of Apprentices to Journeymen	Wages of Apprentices	
			Periodic Increases	In Percentage of Journeymen's Rate
PAINTERS				
N.S.	4	1 to 1, 1 to 3	6 mos	40 40 50 60 65 70 75 85
N.B.	3	1 to 1, 1 to 5 or more	6 mos	35 40 50 60 70 80
Que.	4	1 to 5	12 mos	50 60 70 85 (Montreal)
Ont.	4	1 to 1, 1 to 5 1 to 5 in each district	12 mos	30 40 50 70
Man.	3½	1 to 1, 1 to 5	6 mos	30 35 40 45 55 65 75
Sask.	3 yrs	2 to 4	6 mos	50 55 60 70 80 90
Alta.	3½	1 to 1, 1 to 4	6 mos	35 40 45 50 55 65 80
B.C.	4 to 5	Set by local committee	6 mos	25 30 35 40 45 50 55 65 75 85
PLASTERERS				
N.S.	4	1 to 3	6 mos	45 50 55 60 65 70 75 80
N.B.	3	Left to local committee	12 mos	30 50 80
Que.	4	1 to 5	12 mos	50 60 70 85 (Montreal)
Ont.	4	1 to 1, 1 to 8 Max. 3 apps to an Employer 1 to 8 in each district	12 mos	30 40 50 70
Man.	4	1 to 1 for 1st apprentice 1 additional apprentice al- lowed after 2 yrs	12 mos	30 35 45 60
Sask.	3	1 to 2	6 mos	55 60 65 70 80 90
Alta.	4	1 to 1, 1 to 1	12 mos	30 45 55 75
B.C.	4	Set by local committee	6 mos	25 30 35 40 50 60 70 85
PLUMBERS AND STEAMFITTERS				
N.S.	5	1 to 5	6 mos	40 45 50 55 60 65 70 75 80 85
N.B.	5	Left to local committee	6 mos	35 40 45 50 55 60 65 70 75 80
Que.	4	1 to 1	12 mos	40 50 55 60 70 (Montreal)
Ont.	5	1 to 1, 1 to 5, 1 to 5 in each district	12 mos	30 40 50 70 85
Man.	5	1 to 1, 1 to 5	6 mos	25 30 35 40 45 50 57½ 65 72½ 80
Sask.	4000 hrs to 5 yrs	2 to 4	6 mos	50 55 60 65 70 75 80 85
Alta.	5	1 to 1, 1 to 5	6 mos	30 32½ 35 37½ 40 45 50 60 75 75
B.C.	4	Set by local committee	6 mos	25 30 35 40 50 60 70 85
SHEET METAL				
N.S.	4		6 mos	50 55 60 65 70 75 80 85
N.B.	4	1 to 1, 1 to 5	6 mos	40 45 50 55 60 65 70 80
Que.	4	1 to 1, 1 to 3, 1 to 5	12 mos	50 60 70 85 (Montreal)
Ont.	4	1 to 1, 1 to 4, 1 to 4 in each district	12 mos	30 40 50 70

APPENDIX "D"—*Conc.*

—	Apprentice- ship in Years	Ratio of Apprentices to Journeymen	Wages of Apprentices	
			Periodic Increases	In Percentage of Journeymen's Rate
Man.	5	1 to 1, 1 to 4	6 mos	Wages in cents per hr 25 30 35 40 45 50 55 60 65 70
Sask.	To 4 yrs	1 to 2	6 mos	50 55 60 65 70 75 85 95
Alta.	5	1 to 1, 1 to 3	6 mos or 12 mos	25 30 37½ 37½ 50 50 75 75 80 90
B.C.	4 to 5	Set by local committee	6 mos	25 30 35 40 45 50 55 65 75 85
MOTOR MECHANICS N.B. Auto Body	4 5	1 to 1, 1 to 4	6 mos	40 45 50 55 60 65 70 80 40 45 50 55 60 65 70 75 80 85
Que.	3 4	1 to 2, 1 to 3	12 mos	37 42 48 58 and more (Montreal)
Ont.	5	1 to 1, 1 to 5	12 mos	30 40 50 60 70
Man.	5	1 to 1, 1 to 3, 1 to 5	12 mos	30 40 50 60 70
Sask.	4000 hrs to 5 yrs	2 to 4	6 mos 12 mos	50 cts per hr; 70% 75 80 85 95
Alta.	4	1 to 1, 1 to 3	6 mos 12 mos	35 40 50 60 70
B.C.	4	Set by local committee	6 mos	25 30 35 40 50 60 70 85
BARBERS AND BEAUTICIANS Que. Barbers	3	1 to 1 max. 2 per salon	6 mos	Per week \$5 to \$20 accord- ing to district
Beauticians	3	1 to 1, max. 1, 2 or 5 per salon	6 mos	\$6 7 8 9 10 12·50 or less accord- ing to district
Ont.	3	1 to 1, 1 to 5 according to locality	12 mos	40 70 90 % of journeymen's rate
Sask.	18 mos	2 to 5	6 mos	According to locality—\$14 to 16 per week, 16 to 18·50, 18·50 to 20·00
BLACKSMITHS N.B.	4	1 to 1, 1 to 5	6 mos	35 40 45 50 55 60 70 80 % of journeymen's rate
Man.	4	1 to 1, 1 to 3, 1 to 5	6 mos	30 35 40 45 50 55 60 70% of journeymen's rate. Min. weekly \$10 to start in- creased \$2 each 6 mos
Sask. (includes welding)	4	2 to 4	6 mos	\$18·50 per week for 1 yr; 20 21·50 23 25 27·50 30 In cities and large towns 50% 55 60 65 70 75 85 95
BOILERMAKERS AND MOULDERS Que.	2	1 to 5	1 yr	50 to 85
B.C.	4	Set by local committee	6 mos	25 30 35 40 50 60 70 85
CUSTOM TAILORS Man.	4	1 to 1, 1 to 3	6 mos	30 35 40 45 50 55 60 70 These in cents are also the hourly minimum

APPENDIX "E"

SAMPLE RECORD FORMS

Application for Apprenticeship

New Brunswick

Name.....Address.....Birth Date.....Where Born.....
 (Street) (City or Town) (Province)
 Age.....Telephone.....Height.....Weight.....
 School Grade completed— 1 2 3 4 5 6 7.....
 (name of school)
 Encircle Highest Grade— 8 9 10 11 12.....
 (address)
 Other Schooling.....Parent or Guardian.....
 (name) (address)

TRADE EXPERIENCE

Employer	Nature of Work	Date Started	Date Quit	Wages
Amount of Credit claimed on Apprenticeship Period.....				Married or Single.....
Dependents.....				
References: (Give names and addresses of two responsible persons, other than relatives, who have known you for at least three years).				
(name)	(address)	(phone)		
If my application is accepted, I agree to comply with the terms and conditions of.....				Apprenticeship Standards.
(Signed).....				
Approved by the Local Advisory Committee for.....				
		(chairman)	(secretary)	

CANADIAN WESTINGHOUSE COMPANY LIMITED

HAMILTON - CANADA

Application for Position as Apprentice

(To be filled out in Applicant's own handwriting and returned to Employment Office)

Name.....Date.....Address.....Date of Birth.....Height.....Weight.....
Country of Birth.....When Naturalized if of Foreign Birth.....
General Education.....Technical Education.....Line of Special Study.....
Date of Graduation from Technical School.....Now Employed?... Could begin work...
Days after Engagement.....Reason for Wishing to Make Change.....

Practical Experience with the following Firms	Where	Kind of Work	Dates		Rates
			From	To	

Name and Address of Parents or Guardian.....
References as to ability and character as follows:
..... Paste Inexpensive
..... full face photo here

CANADIAN WESTINGHOUSE COMPANY LIMITED

THIS IS TO CERTIFY THAT.....
 has completed his term of.....years as an apprentice with this company. He has
 performed his work to the satisfaction of the company, and is competent to follow the trade of

 In witness whereof the company has caused these presents to be signed at Hamilton,
 Canada, by its President this.....day of.....A.D. 19...

.....
President.

PROVINCE OF ALBERTA

Certificate of Completion of Apprenticeship

Department of
Trade and Industry

Apprenticeship
Board

THIS IS TO CERTIFY that.....of, Alberta, has diligently and well served as an apprentice.....under standards approved by the Alberta Apprenticeship Board and has with merit completed the practical training, the prescribed course of instruction, and passed the trade tests and examinations to qualify him as a

Dated at Edmonton, Alberta.....

.....
Chairman, Apprenticeship Board
.....
Director of Apprenticeship.

BRITISH COLUMBIA

Contract of Apprenticeship commenced.....Apprenticed to
Contract approved by Committee.....Address
Contract registered by Director.....Trade

WAGES OR REMUNERATION

1st year: 1st half.....2nd half..... 2nd year: 1st half.....2nd half.....
3rd year: 1st half.....2nd half..... 4th year: 1st half.....2nd half.....
5th year: 1st half.....2nd half..... 6th year: 1st half.....2nd half.....
Apprentice's home address.....Date of birth.....

Reverse side used for Inspectors' reports and General Remarks.

CANADIAN GENERAL ELECTRIC
COMPANY LIMITED
APPRENTICE RECORD

Year 1 2 3 4

Name.....Course.....
Date Started.....Left.....Graduated.....
Total Hours of Course.....
Date of Birth.....Birthplace.....Nationality.....
City Address.....Telephone.....
Home Address.....Religion.....
Notify.....Relationship.....
Education.....
Previous Experience.....

PHOTOGRAPH

Total Marks	30	30	15	15	10	100
Ratings	Quality of Work.....	Quantity of Work.....	Originality.....	Dependability.....	Conduct.....	Total.....

SHOP RECORD

Remarks.....
.....

Department	Class of Work	Time in Department			Graded by
		From	To	Total Hours	
.....
.....
.....

FORD MOTOR COMPANY OF CANADA LIMITED

TRADE SCHOOL PROGRESS REPORT

Name.....Badge No.....Master No.....

Address.....Date on Course.....

Age.....Education.....Date off Course.....

RECORD OF PRACTICAL SHOP WORK

Machine	Wks.	Grade	Wks.	Grade	Wks.	Grade	Wks.	Grade
Tool Crib.....								
Drill Press.....								
Shaper.....								
Lathe 1.....								
Lathe 2.....								
Miller Vert.....								
Miller Hori.....								
Jig Bore.....								
Int. Grinder.....								
Surf. Grinder.....								
Ext. Grinder.....								
Cutter Grinder.....								
Slotter.....								
Turret Lathe.....								
Bench Work.....								
Inspection.....								
Heat Treat.....								

PRACTICAL SHOP WORK EXAMINATION RECORDS

Date.....								
No. in Group.....								
Standing.....								
.....%								

NOTE: Lecture Room records for each subject listed on reverse side.

ATTENDANCE RECORD

Number of days worked.....Number of days absent.....Number of days late.....

REMARKS

.....

.....

.....

.....
Supervisor of Trade School.

PROVINCE OF ALBERTA

Apprenticeship Identification Card

BEARER.....

Whose signature appears below is indentured under provision of *The Apprenticeship Act, 1944*, in the trade of.....and is employed by.....

.....
(Signature of Apprentice)

Indenture No.....Date of Issue.....Length of Apprenticeship.....

.....
(Director of Apprenticeship)

Job	Major Processes Work Experience	Class Attendance		Breakdown—Job and Hours			
		Hours	Instructor	Job	Hours	Job	Hours
A							
B							
C							
D							
E							
F							
G							
H							
I							
J							
K							

PROGRESS REPORT

SUPERIOR	AVERAGE	POOR
..... Employer		

FORD APPRENTICE RATING CHART

Factors	A	B	C	D	E	F	G	H
QUALITY Accuracy Proficiency	25 Excellent work. Very accurate.	23 Excellent work. Accurate.	20 Good work.	18 Good Work Errors.	15 Work within limits. Average.	13 Work within limits. Errors.	10 Careless, Errors.	8 Careless, frequent errors.
PRODUCTIVITY Accurate work Completed	20 Very high	18 High.	16 More than expected.	14 Expected quality.	12 Average student output.	10 Below average student. output.	8 Slow.	6 Extremely slow.
ADAPTABILITY Shown when student changes from machine to machine.	15 Changes with little effort.	13 Adapts himself very quickly.	12 Adjusts himself with little difficulty	10 Adjustment made with a little instruction.	9 Must be given detailed supervision	7 Must be given detailed supervision and follow-up.	6 Slow to adapt himself	4 Very slow to adapt himself.
SKILL AND EXPERIENCE	20 Very proficient and wants to know more.	18 Good.	16 Thinks about his project and plans.	14 Seeks advice to speed project.	12 Fair.	10 Without fail will require supervision.	8 Knowledge limited; very haphazard.	6 Little desire for improvement.
DEPENDABILITY Steady worker; reliable.	10 Confident of the student's ability and efforts.	9 Student will give his best.	8 Will follow all instructions.	7 Will follow in- structions with prompting.	6 Generally dependable.	6 Occasionally needs checking.	4 Frequent checking.	3 Frequent checking on routine work.
ATTITUDE Co-operate.	10 Exceptionally good in co-oper- ating with Company and fellow employees.	9 Good in co-operation.	8 Willing to try, but does his share only.	7 Does his share only.	6 Reluctant to try new ideas. Co-operates.	5 Fair.	4 Co-operates only because it is part of his job.	3 Student has little interest in his job.

Key to Rating is shown in each division of Chart.

APPENDIX "F"

Provincial Directors of Apprenticeship

<i>Province</i>	<i>Director</i>	<i>Address</i>
Nova Scotia	H. M. Beaton	Dept. of Labour, 81 Brunswick Street, Halifax
New Brunswick	B. W. Kelly	Box 518, Saint John
Quebec	Gabriel Rousseau	2255 Laurier Street East, Montreal
Ontario	Fred J. Hawes	Dept. of Labour, Parliament Bldgs., Toronto
Manitoba	J. Aiken	Dept. of Labour, Legislative Bldgs., Winnipeg
Saskatchewan	J. S. Dornan	221 Normal School Building, Regina
Alberta	James White	Dept. of Labour, Provincial Bldg., Edmonton
British Columbia	H. Crisford	789 Pender Street West, Vancouver

APPENDIX "G"

The following is an extract from a booklet prepared in New Brunswick, and used there and in Nova Scotia. It combines an outline of the Carpentry course and Apprentice Progress Record, also the outline of the related technical instruction in Drafting, Mathematics, Chemistry and Physics. The outline has been divided into units without designating in which year the processes shall be covered.

The Units for carpenters' apprentices are:

- Unit 1. (a) Hand tool operations.
(b) Machine tool operations.
- Unit 2. Foundation layout and construction.
- Unit 3. Framing.
- Unit 4. Boarding or covering, including wall boards and lath.
- Unit 5. Exterior finish, including stucco.
- Unit 6. Roof framing.
- Unit 7. Interior finish.
- Unit 8. Stair building.
- Unit 9. Carpentry in masonry construction.
- Unit 10. Insulation.

The pages which contain the detailed breakdown of work experiences also have a space in which can be indicated whether the apprentice has been instructed, gained apprentice proficiency or advanced apprentice proficiency in each experience. The following sample page will serve to illustrate:

UNIT 7

	Instructed	Apprentice Proficiency	Advanced Apprentice Proficiency
Inside Finishing—			
(a) Set interior door jambs			
(b) Fit and hang window sash			
(c) Place base blocks (Plinth blocks)			
(d) Install mitered trim			
(e) Install cornerblock trim			

The detail of work in each unit is as follows:

- UNIT 1. (a) Hand Tool operations: 31 topics outlining the use and care of all hand tools.
(b) Machine Tool operations: Perform all operations on all woodworking machines.

- UNIT 2.** Foundation Layout and Construction: Layout foundation lines and levels; construct forms for side walk or curb, wall and footing, lot line, pier, pilaster and splayed footings, wall extensions, stair, column, girder and beam, floor, ceiling, roof slab, ribbed floor; place screeds; set window and door frames in wall forms, tank-round, square or polygon; set parts, e.g. coal chutes, in wall forms; construct forms for precast sills, lintels, etc.; place reinforced steel; wire, tie, brace, secure all forms; shore, brace, underpin.
- UNIT 3.** Framing: Place sills including anchors, beams, girders, floor joists; frame out floor openings; cut and place bridging; mark out locations of parts from sill to roof, shoes, plates, ribbands; layout and cut studs; cut in braces; truss over openings; construct corner posts; lay out, erect non-bearing partitions; strap ceilings; construct double partitions for sliding doors; erect cornice furring; construct hearth supports for flat or curved arch; suspended ceiling; prepare joists for tile floor; construct a hanging wall; safe scaffolding; frame additions, bay windows, curved work or vaulted ceiling; construct sound-proof walls.
- UNIT 4.** Boarding or Covering Including Wall Boards and Lath: Lay a sub floor; board in a wall frame, equal or one good pitch roof, hip and valley roofs; lathing; erect metal corner bead interior, exterior; place and true up plaster grounds.
- UNIT 5.** Exterior Finish Including Stucco: Set window and exterior door frames; place water-table, corner boards, cornice members; layout and miter ends of raking cornice; flash over openings; place wood or composition shingles, various manufactured sidings; make shingled corners, mitered siding corners; place double course shingles; install gravel strip; shingle all types of roofs and flash valleys; place hip boards or hiproll, ridge boards, roll roofing; flash around chimney, sidewalls of dormers; install parapet coping; construct chimney crickets; install half timber for stucco work, screeds; place porch and balcony rails, posts and balusters, porch columns, outside steps, rails newel posts; place thresholds, exterior doors.
- UNIT 6.** Roof Framing: With steel square layout common rafter, hip rafters, valley rafters, hip-jack and valley—jack rafters cripple rafters; shed roof rafter; erect knee walls; cut and place collar beams; frame dormer windows; layout and frame trusses, cut and place purling; frame roofs: gambrel, monitor, domical, polygonal, spire, conical, flat sloping to interior.
- UNIT 7.** Inside Finishing: Set interior door jambs; fit and hang window sash; install mitered trim, cornerblock, mantle, back band trim; place base board; fit and place apron and window stool; place window stops; trim sliding door frames; fit and hang single and double acting doors; fit miscellaneous mouldings; install interior hardware, cupboards and fittings; fit and install casement and pivot sash, screens, shutters, storm sash, panels; erect interior wood cornice; install shop fittings; fit and install metal and wood thresholds, accordion doors; lay and scrape finish floors.
- UNIT 8.** Stair Building: Lay out, cut and erect stringers for open or box stairs; erect newels, handrail and balusters; fit and place skirt boards and risers and treads; install parapet type finish on stairs; construct ladder type stairs.
- UNIT 9.** Carpentry in Masonry Construction: Install joist hangers, joist anchors, wood bucks; set frames in brick or stone walls; lay out story rods; place screeds; make cornice molds; layout and erect centres for arches; furr masonry walls; place plaster grounds; fasten miscellaneous work to masonry.
- UNIT 10.** Insulation: Principles underlying insulating and acoustic treatments; install insulating and acoustic and sound-proofing materials.

Space is provided for instructors of related subjects to certify that the apprentice has completed the prescribed courses for each year of apprenticeship.

The related courses in drafting, mathematics, physics and chemistry are outlined in considerable detail, although it is not required that they be covered exhaustively.

Outline of Drafting Course for Carpentry Apprentices

1. Introduction—Breakdown of the trade.
2. The tools of the trade—their uses and care.
3. Laying out Drawing on Board.
4. Lettering.
5. Applied Geometry—Construct geometrical figures by a diversity of methods.
6. Projection Drawing—Perspective, Orthographic, Isometric.

7. Third angle projection—Position of views; three view drawings; junctures of invisible lines; projection of oblique lines and angles between lines, circles and curves; intersections of cylindrical surfaces and tangencies; problems given two views, three views with missing lines.
8. Dimensioning—Rules for dimensioning.
9. Auxiliary Views—True lengths; partial views; working drawings to scale using auxiliary views.
10. Sectional Views—The cutting plane; section lines (American Standard); symbols, spacing angles; principles in sectioning.
11. Framing—Details of frame construction: Balloon, western, braced; sills, corner posts, girts, plate, braces, studding, bridging, cap and sole, joists, rafters, joints in construction timber; framing wall openings, partition and wall, hearths, fireplaces, chimneys, stairwell, bay windows; roof styles, dormer styles.
12. Water Table Construction—Cap, furring strip, brickveneer and stucco construction.
13. Cornice Construction—Rake box; straight box cornice; closed cornice on brick building; cornice exposed.
14. Windows—types and design and standard sizes; how window openings are figured; double hung window in frame, brick veneer and brick wall; dormer, bay and casement windows; basement window—wood or steel sash in brick or concrete.
15. Doors—Interior, exterior and garage; styles, construction and standard sizes; door and frame details; front entrance styles and details in frame and brick and stucco; porch details.
16. Stairs—Types, construction; stairway layout; stair details.
17. Fireplace—Standard size of openings; hearth, flue and damper; mantle designs and details.
18. Cabinet Work—Joints in woodwork; wood mouldings; panelling; book cases; built-in china cabinets, ironing boards, kitchen cupboards, breakfast alcoves.
19. Architectural Symbols.
20. Planning a House—Budget; site space requirements.
21. Laying-Out Plans—
22. Estimating—Cubic content; lumber; brick; concrete; painting.
23. Concrete—Concrete retaining walls; cantilever and "L" type retaining walls; piles; footings and foundations; exterior steps; reinforcing bars; floor sections, columns, beams and trusses.

Outline of Chemistry Course for Carpentry Apprentices

1. General discussion of meaning of Chemistry, field of Chemistry, and its place in industry.
2. Chemical changes as distinguished from other changes. Demonstrate by the following experiments: Heating of mercuric oxide, Dehydration of sugar, Formation of silver chloride, Electrolysis of salt water.
3. Matter vs. Energy—Chemical changes. Applications—Hardening (seasoning) mortar, sand, and lime bricks, slaking of lime; burning of bricks, etc.
4. Classification of Matter—Elements, Compounds and Mixtures.
5. Experiments showing difference between elements, compounds, and mixtures.
6. Properties of Oxygen.
7. Discussions of oxides, oxidation, combustion, spontaneous combustion.
8. Filtration, evaporation, and condensation.
9. Crystals—water of crystallization, efflorescence, deliquescence, etc.
10. Freezing point and boiling points of fresh water and solutions.
11. Acids—Study of common properties.
12. Bases—Properties of some common bases.
13. Salts—Definition, formation.
14. Carbon dioxide—Study of its properties.
15. Use of CO₂—Fire Extinguishers; hardening or setting of mortar; seasoning of land-lime, bricks, etc.
16. Study of common building materials: (a) Synthetic building boards—Celotex, Tentest, Masonite, Rockwall, etc., (b) Glues, compositions, sizing materials, etc.
17. Water and Metals—Corrosion, Saline waters.
18. Recognized methods of combating rusting and corrosion.

Outline of Mathematics Course for Carpentry Apprentices

Arithmetic—Addition, subtraction, multiplication, division; short cuts.

Common Fractions—Practical applications.

Percent—Problems related to trade.

Geometry—Lines and angles; triangles, parallel lines, quadrilaterals, polygons, circles; plane geometry used in solution of shop problems.

Mensuration Area—All area figures and volumes; application of these measures to trades.

Algebra—Fundamental operations; use of algebraic symbols and formulae; positive and negative numbers, exponents, solution of equations, simple factoring, problems.

Trigonometry—Functions of an angle; use of tables; solution of right and oblique triangles; applications to trade.

Outline of Physics Course for Carpentry Apprentices

UNIT 1. Introduction—What Physics is; mechanics, heat, light, sound, electricity. Matter; solids; liquids; gases.

UNIT 2. Measurement—length, area, volume, mass and weight; specific gravity; density.

UNIT 3. Mechanics—Machines—definition of work; mechanical advantage; simple machines—trade applications; friction—factors affecting.

UNIT 4. Energy; Power—units and measurement; transmission of power.

UNIT 5. Forces—Parallelogram of forces; simple roof trusses, scaffolding, crane.

UNIT 6. Moments—Loads on simple beams; live and dead loads; use of tables for size of beam carrying given load; behaviour of materials under load; working stresses for timbers; bearing values of soil—compressive strength of stone, brick, concrete.

UNIT 7. Capillary action of liquids.

UNIT 8. Air-weight and density; static and dynamic pressure of air.

UNIT 9. Heat—Fahrenheit and Centigrade; expansion of solids through heat; conduction, convection, radiation; heat units, B.T.U.; heating systems; loss of heat; insulation of buildings; humidity; air conditioning; refrigeration.

UNIT 10. Electricity—Static and current; Ohm's Law; units of power; principle of electric motor.

